

3M Traffic Safety and Security Division
User's Manual



User's Manual

Version 2.7 or above



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Notices *(continued)*

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Version

This manual documents the 2.7 series versions of the 3M License Plate Capture Software and was last updated on March 4, 2014.

1 Introduction

The 3M License Plate Capture Software provides in-car Automatic License Plate Recognition (ALPR; also called Automatic Number Plate Recognition, or ANPR). This software has been developed in collaboration with law enforcement to ensure that it meets the needs of their agencies and officers as well as the needs of other organizations, such as security and asset recovery companies, that must identify vehicles and associated license plate data.

The 3M License Plate Capture Software ALPR solution uses up to four 3M dual-channel, or dual-lens, cameras (color and Infrared [IR]) to read plates and a software program installed on the 3M™ Mobile ANPR/ALPR Processor or on a mobile data computer (MDC) such as a laptop.

The software is optimized to run on MDCs with Windows XP (SP2 or SP3), Windows Vista, Windows 7, or Windows 8 operating systems; it runs on the 3M Mobile ANPR/ALPR Processor with Microsoft Windows XP Embedded. Either a standard or touch screen monitor can be used. The larger buttons and software-based keyboard make data entry easy when using a touch screen.

The 3M License Plate Capture Software downloads the infrared plate image provided by any of the cameras along with the plate number interpreted through Optical Character Recognition (OCR) by the mobile processor. The application then searches for any matches of the plate with plates listed in the databases, or "hotlists," uploaded from the 3M Back Office System Software (BOSS) or other external sources.



WARNING: To reduce the risks associated with impact, which if not avoided, could result in serious injury or death: DO NOT interact with the ALPR system while driving in hazardous situations. The 3M mobile camera series and License Plate Capture Software are not intended for use in hazardous environments, so that the User and/or others are not put at risk for personal injury and/or property damage.



1.1 Color and Infrared Camera in One Unit

The 3M mobile camera series uses visible light to take color overview pictures of the vehicle and uses infrared illumination to capture the license plate's alphanumeric characters.

IR illumination offers the best capture performance of reflective license plate characters:

- License plates can be highly reflective to IR.
- Cameras using IR are not affected by, and do not depend on, visible light or the absence of natural or artificial light. Because the effects of headlight or sunlight glare and total darkness are eliminated, the system can be used 24 hours a day, seven days a week.
- IR penetrates rain and fog better than visible light.

A maximum of four 3M dual-lens cameras can be installed in one vehicle, provided the system supports the additional hardware.

1.1.1 Available Enhancements

Additional information about other 3M applications, cameras, and solutions is available on the 3M web site: <http://www.3M.com/mvss>.

1.2 Using This Manual

The remaining chapters of this software manual are as follows:

Chapter 2: The Quick Start Guide provides users with an overview of the 3M License Plate Capture Software procedures such as beginning and ending the shift and using the Live View screen.

Chapter 3: Administrator's Guide to Installation explains how to install and update the 3M License Plate Capture Software.

Chapter 4: Screen Reference explains every screen function in the 3M License Plate Capture Software including setup functions available to Administrators.

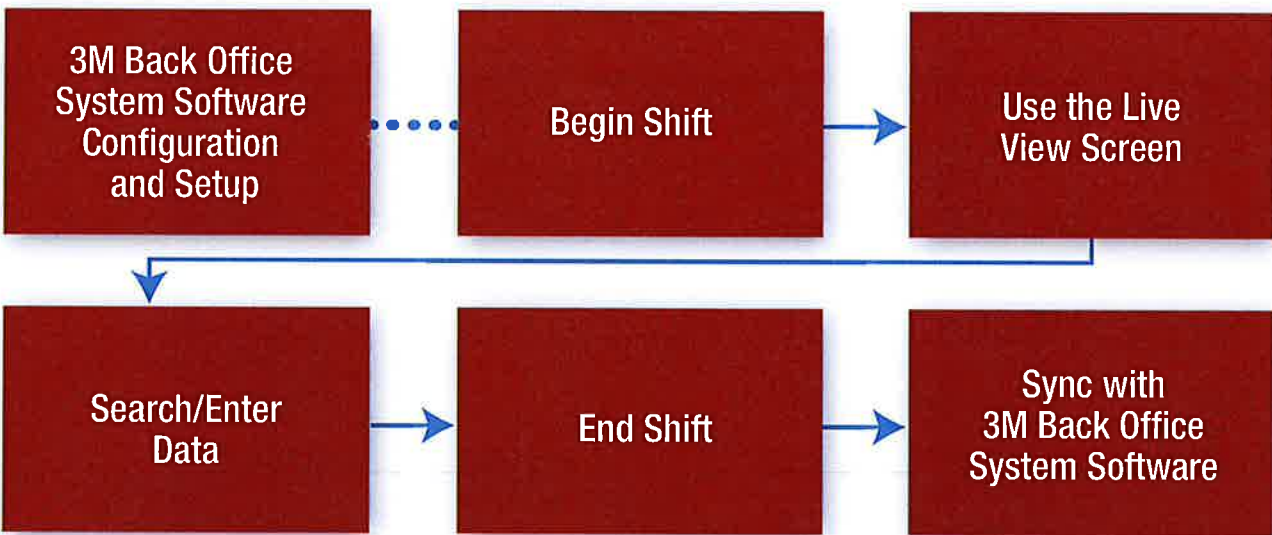
The appendices describe additional features (such as the INI file), additional procedures, and features available to international users. This manual also includes a glossary and an index.

2 Quick Start Guide

This chapter provides a “cheat sheet” for the most commonly used procedures and screens. Detailed explanations of features in this product are discussed in Chapter 4, Screen Reference.

Tip: Print this chapter and keep it where the 3M License Plate Capture Software is installed as a quick reference guide.

The flowchart below describes the basic steps performed when using the 3M License Plate Capture Software. Each time you use the 3M License Plate Capture Software, you will always have a Begin and End Shift. The step “Search/Enter Data” is optional.



2.1 Logging On

Before anyone begins using the 3M License Plate Capture Software, Administrators will have installed, configured, and set up both this software and the 3M Back Office System Software (BOSS), where databases (called “hotlists” in BOSS) and other information are maintained.

Administrators will also have assigned each user a Badge No. (username) and password.

Depending on the setup of your system, you will have either (1) a laptop or other mobile data computer (MDC) loaded with the 3M License Plate Capture Software and connected to the 3M Mobile ALPR Processor, or (2) a touch screen (or keyboard and screen) connected to the software loaded directly on the mobile processor.

Again, depending on setup, you will access BOSS data either wirelessly or via a USB flash drive (also called a “memory stick” or “thumb drive”), which has been synchronized to BOSS through the Synchronize function of the 3M Back Office System Software Client Tools Utility. *See the 3M Back Office System Software User’s Manual for additional details.*

To open the Login screen:

1. Insert the USB flash drive into the MDC or the mobile processor (depending on the setup), or verify that the MDC or the mobile processor is connected to a wireless network.
2. Start the software by double-clicking the 3M License Plate Capture Software icon.

2.1 Logging On *(continued)*

- Using the keyboard or the keypad on the touch screen, enter your badge no. (username) and password.



- Location will either (1) display a default value, if one has been configured, (2) remain blank, or (3) be changed by the user on login. It is not a required field.
- Press **Login** to access the 3M License Plate Capture Software.

If you enter an incorrect username/password three times, after the third attempt, an error message will display "Login Failed," and the 3M License Plate Capture Software will close.

2.2 Using the Live View Screen

The Live View screen first appears after you log in to the 3M License Plate Capture Software. The main functions are listed and accessible via buttons across the bottom of the screen.

Search Entry – Search reads currently stored in the 3M License Plate Capture Software, check for a license plate in the databases, or add a license plate to the Manual Reports database.

Review – View the following summary statistics for that particular system: reads, hits, audits, misreads, and the databases.

Begin Shift – Press twice to begin the shift and synchronize data into the 3M License Plate Capture Software directly from the flash drive or from the 3M Back Office System Software using a wireless network.

End Shift – Press twice to end the shift and synchronize data from the 3M License Plate Capture Software directly to the flash drive or to the 3M Back Office System Software using a wireless network.

Cam Mode – Toggle between the various camera configurations as defined by the System Administrator. The default choices are **Parking** and **Traffic**.

Admin – Access the Admin Main Menu (available to Administrators only).

Log Out – Log off the system.



2.3 Beginning the Shift

3M LPCS stores data that is used during a shift in local databases. Press **Begin Shift** twice to synchronize the BOSS hotlists and other data used during the shift to the software either from the USB flash drive or wirelessly from BOSS. After the 3M License Plate Capture Software has been synced to BOSS via a wireless network, data is flagged in the database to prevent duplicate syncing.



2.4 Searching and Entering Data

Press **Search Entry** from the **Live View** screen to display the **VLP** (Vehicle License Plate) or **DL#** (Driver's License Number) search screen.

Text Box – Enter the license numbers and/or letters to search.

Key Pad – Press to activate an on-screen keypad, for use with a touch screen monitor or with a mouse.

Clear – Clear the content of the text box. **DL#** – Check the databases (BOSS hotlists) for the driver's license number entered in the text box.

2.4 Searching and Entering Data *(continued)*

Reads – Search for a match of the entered number with the reads and hits currently stored in the 3M License Plate Capture Software databases.

Add VLP – Check the databases for the entered vehicle license plate. If the plate is not found, it can then be added to the Manual Reports database.

Esc – Return to the Live View screen.

Take these steps to take to initiate a search:

- Press the **Search Entry** button on the Live View screen.
- Press **Key Pad** to activate the on-screen keypad.
- In the text box enter the alphanumeric string to search.
- To search for a driver's license number, press the **DL#** button.
- To search for a match with a read or hit currently stored in the 3M License Plate Capture Software database, press the **Reads** button.
- To search for a specific plate, press the **Add VLP** button to search the databases for matches. If a match occurs, a message displays showing that the plate is already recorded and which database(s) it has been found in. If no match occurs, the plate number can then be added to the Manual Reports database using **Add VLP Report**.

Note: Wild card searches can also be performed using the * and _ characters. The asterisk (*) designates an unknown number of characters while the underscore (_) indicates a single missing or unknown character. To search for a plate number with the characters J and 8, entering "J_8*" will display all records containing J and 8 separated by one character.

- Press **Clear** to clear the content of the text box.
- Press **Esc** to return to the Live View screen.

2.5 Ending the Shift

Follow the same procedures to synchronize data from the 3M License Plate Capture Software whether you are syncing to a USB flash drive or directly to BOSS via a wireless network.

1. Press **End Shift** twice. This process may take a few minutes. An on-screen message will display when it is complete.
2. Press **Log Out** to log off the system. Wireless users are complete at this point. The End Shift data has gone directly to BOSS.
3. Remove the flash drive from the MDC or from the 3M Mobile ALPR Processor.
4. Follow the 3M Back Office System Software Client Tools instructions to sync the flash drive data into the 3M Back Office System Software. *See the 3M Back Office System Software User's Manual for additional details.*

3 Administrator's Guide: Installation

3.1 Minimum System Requirements

The 3M License Plate Capture Software requires the following minimum system requirements for the mobile data computer:

- Pentium-compatible PC at 1.0 GHz
- Windows Vista, Windows 7, or Windows 8
- Microsoft .NET Framework 3.5
- 8 GB of RAM
- At least 1 GB of hard drive space
- SVGA display with a minimum resolution of 800 x 600 pixels
- An available Ethernet port that will accept the following IP address: 192.168.200.200
- Keyboard and mouse, or a touch screen monitor
- NMEA-compliant GPS unit with a USB connector

3.2 Installation Procedures

If you are installing the 3M License Plate Capture Software for limited user accounts, whoever will be operating the 3M License Plate Capture Software needs to have read and write privileges for the 3M License Plate Capture Software installation directory. Otherwise, the 3M License Plate Capture Software will not be able to record data.

The 3M License Plate Software has two configurations:

1. In one, VP Relay installed on the 3M Mobile ANPR/ALPR Processor provides read information via a network connection to a version of the 3M License Plate Capture Software installed on a mobile data computer (e.g., laptop).
2. In the other, the stand-alone version of the software is installed directly on the 3M Mobile ANPR/ALPR Processor.

3.2.1 Installing the Software in the VP Relay/Mobile Data Computer Configuration

3.2.1.1 Installing VP Relay

The VP Relay application is a utility installed on the 3M Mobile ANPR/ALPR Processor that collects images from the attached cameras and GPS coordinates from a connected GPS device. VP Relay then forwards this information to the 3M License Plate Capture Software running on a connected laptop. VP Relay is initially installed on the 3M Mobile ANPR/ALPR Processor by the manufacturer before shipping. However, from time to time, updates are made to the 3M License Plate Recognition Software and a newer version of VP Relay needs to be installed on the 3M Mobile ANPR/ALPR Processor.

1. Establish a remote connection to the 3M Mobile ANPR/ALPR Processor by opening **Remote Desktop Connection** on the laptop. Click **Options** and then click on the **Local Resources** tab. Click on **More** and then expand **Drives**. Select the local drive on the laptop where the **PAGIS_Setup_2.7.x.<build number>.exe** is stored. Click **OK**.
2. Select the **General** tab. In the Computer field enter the IP address of the 3M Mobile ANPR/ALPR Processor, usually 192.168.200.201. Click on **Connect**. The Username is *pips* and the Password is *pips*.

3.2.1.1 Installing VP Relay *(continued)*

3. If this is a migration from a previous installation, change the name of the original PAGIS folder located on the 3M Mobile ANPR/ALPR Processor to **PAGIS2_Original**.
4. From the MDC, copy the file **PAGIS_Setup_2.7.x.<build number>.exe** to the 3M Mobile ANPR/ALPR Processor desktop.
5. Run the installation file. Click **Yes** on the error message "Unrecognized Operating System Windows XP Embedded Service Pack 3."
6. When the Licensing Agreement is displayed, click the check box indicating acceptance of the terms. Click **Next** to continue.
7. Select **SuperRex III Client** and the desired **Shortcuts**. Click **Next** to continue.
8. Confirm the installation location on the D:\ drive, selecting **Browse** if necessary. Click **Install** to continue.

Note: VP Relay must be installed on drive D. Drive C is locked so any files added will be removed when the 3M Mobile ANPR/ALPR Processor is rebooted.

9. When the "Installation Complete" message is displayed, click **Next** to continue. Then click **Finish** when the "Completing the PAGIS Setup Wizard" message is displayed.
10. Click **Yes** when the reboot message is displayed.
11. After the system reboots, confirm that the VP Relay application is running as a service. You can do this by starting **Service.msc**. If the application is not running, right click on the service. Select **Properties** and change the Startup type to **Automatic**. Click on **Start** in the Service status section. Click **Apply** and **OK** to save changes.

3.2.1.2 Installing the 3M License Plate Capture Software on a Mobile Data Computer

After you install VP Relay on the 3M Mobile ANPR/ALPR Processor, you must install the MDC version of the 3M License Plate Capture Software application on the networked laptop, using the following steps:

1. If this is a migration from a previous installation of the MDC version of PAGIS or ALPCS, confirm that an **End Shift** has been completed and there are no current reads or hits in the system. Then change the name of the application folder to **PAGIS2_Original**.
2. Transfer the installation file, **PAGIS_Setup_2.7.x.<build number>.exe**, to the laptop.
3. Run the file as an Administrator.
4. When the Licensing Agreement is displayed, click on the check box indicating acceptance of the terms. Click **Next** to continue.
5. Select **MDC PAGIS** and the desired shortcut options. Click **Next** to continue.
6. Confirm the installation location, selecting **Browse** if necessary. Click **Install** to continue.
7. When the "Installation Complete" message is displayed, click **Next** to continue. When the "Completing the PAGIS Setup Wizard" message is displayed, click **Finish**.
8. Click **No** when the reboot message is displayed.

9. If this is a migration, the following files can be copied from the PAGIS2_Original directory to the new installation directory:

ANPR folder

Data\attributes.db

Synchronizer.ini

PAGIS.exe.config

FuzzyLogic.ini (if it exists)

Otherwise, go to the second Admin screen and configure the application as needed. If port 8092 (the default sync port for the 3M Back Office System Software server) is unavailable, then you will need to change the connection to a supported port.

10. Install VP Relay on the 3M Mobile ANPR/ALPR Processor by following the VP Relay installation instructions.
11. Restart the laptop. Then start the 3M License Plate Capture Software and log on. Confirm that the software is receiving images from the cameras.
12. Perform a **Begin Shift** to confirm that the software is receiving all files correctly.
13. After confirming that the new installation was successful, delete the **PAGIS2_Original** directory and the **PAGIS_Setup_2.7.x.<build number>.exe**.

3.2.2 Installing the Software in the Stand-Alone Configuration

A stand-alone version of the 3M License Plate Recognition Software can be installed directly on the 3M Mobile ANPR/ALPR Processor, performing the same function as both the VP Relay and the MDC applications. The read is then stored and processed just as it is in the MDC version. Follow these steps:

1. If this is a migration from a previous installation of the MDC version of PAGIS or ALPCS, confirm that an **End Shift** has been completed and there are no current reads or hits in the system. Then change the name of the application folder to **PAGIS2_Original**.
2. Transfer the installation file **PAGIS_Setup_2.7.x.<build number>.exe** to the 3M Mobile ANPR/ALPR Processor desktop.
3. Run the installation file. Click **Yes** on the error message "Unrecognized Operating System Windows XP Embedded Service Pack 3."
4. When the Licensing Agreement is displayed, click on the check box indicating acceptance of the terms. Click **Next** to continue.
5. Select **Stand-Alone PAGIS** and the desired shortcut options. Click **Next** to continue.
6. Confirm the installation location on the D:\ drive, selecting **Browse** if necessary. Click **Install** to continue.

Note: The stand-alone application must be installed on drive D. Drive C is locked so any files added to it will be removed when the 3M Mobile ANPR/ALPR Processor is rebooted.

7. When the "Installation Complete" message is displayed, click **Next** to continue. When the "Completing the PAGIS Setup Wizard" message is displayed, click **Finish**.
8. Click **No** when the reboot message is displayed.

3.2.2 Installing the Software in the Stand-Alone Configuration *(continued)*

9. If this is a migration, the following files can be copied from the PAGIS2_Original directory to the new installation directory:

ANPR folder

Data\attributes.db

Synchronizer.ini

PAGIS.exe.config

Otherwise, go to the Admin\Admin section of the LPCS application and configure it as needed.

10. Restart the 3M Mobile ANPR/ALPR Processor. Start the 3M License Plate Capture Software and log on. Confirm that the software is receiving images from the cameras.
11. Perform a **Begin Shift** to confirm that the software is receiving all files correctly.
12. After confirming that the new installation was successful, delete the **PAGIS2_Original** directory.

4 Screen Reference

This chapter guides the user through the 3M License Plate Capture Software screens and the available options. Screens are grouped according to functions. When a button is grayed out, the option is not available or no information has been accrued to activate it.



4.1 The 3M License Plate Capture Software Login Screen

The 3M License Plate Capture Software allows for multiple users with individual access privileges. For users with touch screen monitors, the Key Pad button immediately to the right of any text box that accepts input gives you access to an on-screen keyboard for data entry.

Badge No. (Username) – The alphanumeric string assigned to identify the user. For law enforcement officers, this is typically their badge number.

Password – Password of the user.

Location – Location where the 3M License Plate Capture Software will be used. This is an optional field. If the Administrator has configured a default location, that location will be displayed; otherwise, it will be blank. You can manually enter a location at logon, keep the default location, or leave the location field blank.

Login – Logs the user on to the 3M License Plate Capture Software.

Exit – Quits the 3M License Plate Capture Software.

4.1.1 Logging on with the Default Administrative Account

The 3M License Plate Capture Software includes a default administrative account that can be used for the initial configuration. For the very first logon after installation, press **Login** with the Badge No. and Password fields blank.

If the 3M License Plate Capture Software is wirelessly synced to the 3M Back Office System Software and if the 3M Back Office System Software only has the default user account, then on the next login, the user must type "admin" in the Badge No. field and leave the Password field blank.

System Administrators are strongly encouraged to configure users for the 3M License Plate Capture Software soon after installation and setup. Once usernames and passwords are established by the System Administrator, the default user account will be disabled. Make sure that, when user accounts are created, at least one account has administrative privileges.

4.2 Live View

Once a user logs on, the Live View screen opens. This is the main view and all the 3M License Plate Capture Software features can be accessed from this point. It is on this screen that read images are monitored. Once a connection has been established with the mobile cameras, images will be displayed, and the system will begin capturing plates. Live View can display a still image or video (if video cameras are used) of a vehicle, its license plate with the number interpreted by the optical character reader, the Camera Mode, and Camera or Lane Name, as defined in camera configuration setup. Using this screen, you can toggle between the displayed cameras by pressing **Cam Mode** at the bottom of the screen. The display also includes the interpreted plate number and GPS information, if available. The 3M License Plate Capture Software plays an alert sound – a beep by default – each time a license plate is read.



4.2.1 Read Monitor Features

The dual-lens cameras can capture both a color and an infrared image. There are three buttons for the two cameras displayed on the Live View screen. Two of these buttons allow you to change the image from color to infrared and back again.

Col – The color view is the default image on the Live View screen. Color is also the primary image, and the display will return to the color image from an IR image when the next read occurs.

IR – If the IR button is clicked, the IR image being sent from the camera will be displayed on the Live View screen. If a read occurs while the image is in IR mode, the image will change back to color. The infrared button is visible only when an infrared camera is configured (some older cameras have color lenses only).

GPS Coordinates – Color-coded GPS coordinates appear just above the three buttons for each camera: Yellow background indicates that the coordinates have been received and the system is in the process of confirming the information. The background changes to green when the information has been confirmed. It changes to red if an error occurs while receiving the GPS information.

4.2.1.1 Taking a Picture

Use the third button below each displayed camera, **Take Pic**, to take a picture of the image displayed for that particular camera.



To take a picture from the Live View:

1. Press the **Take Pic** button to open the Take Picture screen.
2. Once the image displays for that camera, enter any desired notes in the text box using the keypad button or keyboard.

IMPORTANT: The picture will NOT be saved if a note is not entered in the text box.

3. Press **Take Pic** again.
4. Press **Save** to save the picture, or **Escape** to cancel. Either action will return you to Live View.

4.2.3 Other Functions Accessible from Live View

Six of the seven buttons across the bottom of the Live View screen take you to additional system functions: Search Entry, Review, Begin Shift, End Shift, Cam Mode, and the Admin Main Menu, described in the following sections. Pressing **Log Out**, the right-most button on the bottom of the screen, logs you out of the software and returns you to the Login screen.

4.3 Search Entry

Press **Search Entry** from the Live View screen to display the screen that lets you search the synchronized databases for license plates, reads, or driver's licenses. The same Search Entry screen is also accessible from the Database screen. Searching returns only information that is in the database(s) synced at Begin and End Shift, and in the 3M License Plate Capture Software Manual Reports database.

Text Box – Enter the alphanumeric string to search.

Key Pad – Press to activate an on-screen keypad, for use with a touch screen monitor or with a mouse.

Clear – Clear the content of the text box.

DL# – Check the databases (BOSS hotlists) for a driver's license number entered in the text box.

Reads – Search for a match of the entered number with the reads and hits currently stored in the 3M LPCS databases.

Add VLP – Check the databases for the entered vehicle license plate.

Esc – Return to the previous screen.



4.3.1 Searching for Matches

- Press the **Search Entry** button on the Live View screen.
- Press **Key Pad** to activate the on-screen keypad.
- In the text box enter the alphanumeric string to search.
- To search for a driver's license number, press the **DL#** button.
- To search for a match with a read or hit currently stored in the 3M License Plate Capture Software database, press the **Reads** button.
- To search for a specific plate, press the **Add VLP** button to search the databases for matches. If a match occurs, a message displays showing that the plate is already recorded and which database(s) it has been found in. If no match occurs, the plate number can then be added to the Manual Reports database using **Add VLP Report**.

Note: Wild card searches can also be performed using the * and _ characters. The asterisk (*) designates an unknown number of characters while the underscore (_) indicates a single missing or unknown character. To search for a plate number with the characters J and 8, entering "J_8*" will display all records containing J and 8 separated by one character.

- Press **Clear** to clear the content of the text box.
- Press **Esc** to return to the Live View screen.

4.3.1.1 Adding a VLP Report

If a VLP query does not return a match for a searched license plate, the Add VLP Report will be displayed and can be used to add the plate to the Manual Reports database. The plate number searched will appear near the top of the screen. Under it are the following buttons, including four alert options:

Amber Alert – Flags the current entry with an Amber Alert.

Felony – Flags the current entry as used in a felony.

Stolen – Marks the current plate as a stolen vehicle.

Misc – Flags the current entry as a miscellaneous offense and can be used to classify the plate as other than Amber Alert, Felony, or Stolen in the additional information you add to the text box.

Text Box – The alert option selected will display in the text box. Additional text can be entered for documentation purposes.

Key Pad – Press to activate an on-screen keypad, for use with a touch screen monitor or with a mouse, to add information to the text box.

Esc – Returns you to the Search Entry screen.

Save – Updates the Manual Reports database with the new information.



4.3.1.1 Adding a VLP Report *(continued)*

To add a VLP report:

1. Select **Amber Alert**, **Felony**, **Stolen**, or **Miscellaneous** as applicable. The license plate number with the date and time stamp will now appear in the text box.

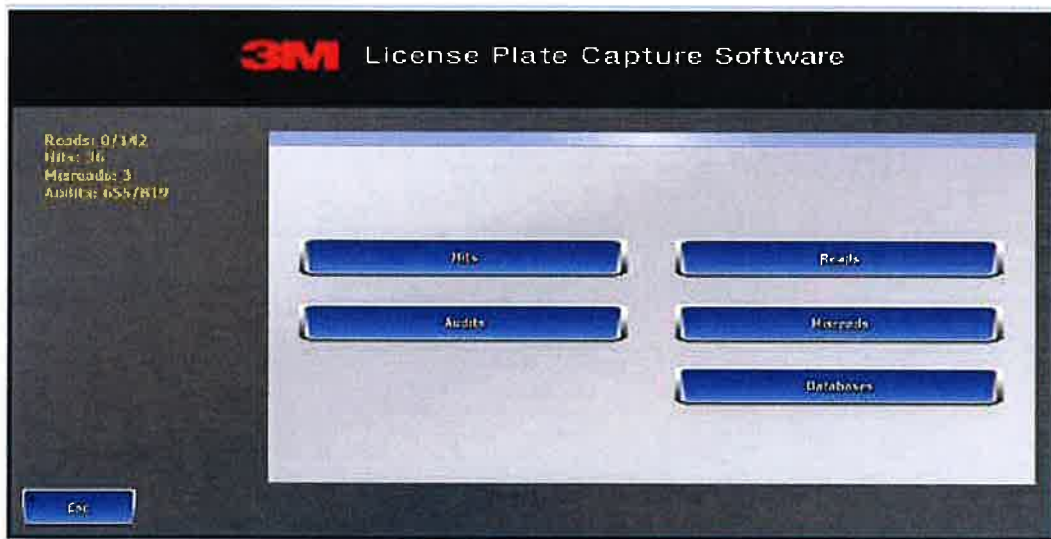
Note: The data will NOT be saved unless you select one of these four buttons.

2. Add to the text box any additional information associated with the license plate.
3. Press **Save** to update the Manual Reports database with the new information.
4. Press **Esc** to return to the Search Entry screen.

4.4 Review

Pressing the **Review** button opens the Review screen, which displays a summary of data collected during the shift in four categories:

- Reads shows two counts: the total number of reads synced to BOSS (in Disk Sync mode this will always be zero) and the total number of reads captured during the shift
- Hits: the total number of hits that have occurred during the shift
- Misreads: the total number of reads marked as misreads during the shift
- Audits shows two counts: the number of audits synced to BOSS (again, in Disk Sync mode, this will always be zero) and the total number of audits during the shift.



The buttons on the Review screen allow you to review the information collected in the four categories plus the available databases. On the screen for each type of information, you can scroll through every item in the category.

Hits – Displays the hit alerts for VLP reads that matched plates in the database(s).

Reads – Displays all plate detections that have occurred since the last End Shift sync.

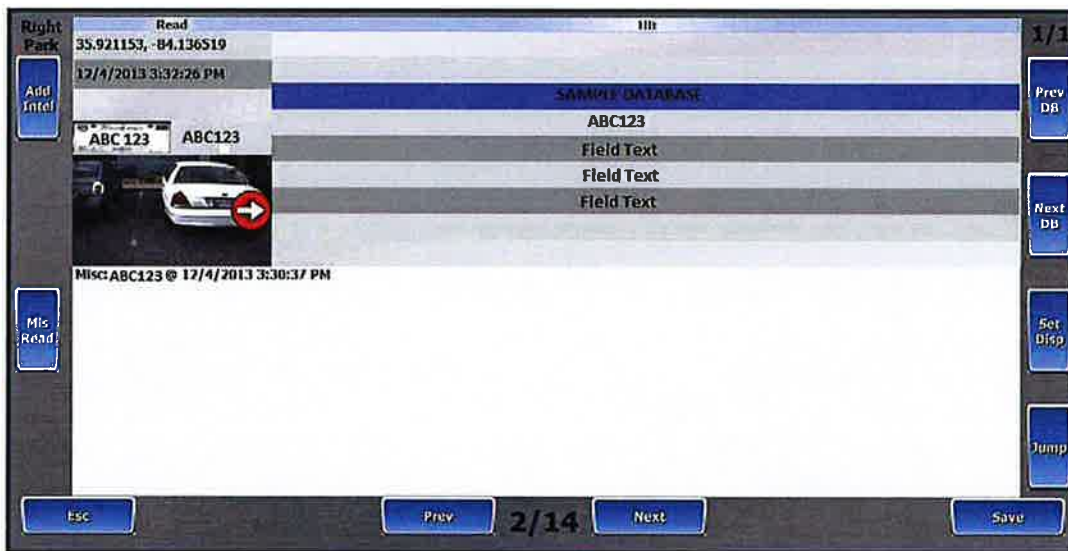
Audits – Displays failed and successful logons, any manual data entered during the shift, and all manual license plate searches.

Misreads – Displays reads and/or hits that have been manually flagged during the shift as misreads, where the plate number in the image does not match the OCR interpretation of the plate (e.g., a letter O misread as a Q or zero).

Databases – Takes you to the Database screen and all the databases currently in the 3M License Plate Capture Software.

Esc – Returns you to the previous screen.

4.4.1 Hits



To review hits, you can access the Hits screen from the Review screen. Also, whenever a hit occurs (i.e., whenever a VLP read matches a database entry), the 3M License Plate Capture Software sounds an alarm and automatically displays the Hits screen with the database information to alert the user.

At the top of the screen there is information about the specific hit:

Camera Name – The name of the camera ("Right Park" in the screen shot) from which the hit originated.

GPS Location – The GPS coordinates for the hit. If a GPS device is not attached, the location is displayed as 0,0 for longitude and latitude.

Date and Time Stamp – The date and time when the system captured the VLP, with all associated data, and confirmed it as a hit

Patch Image – A thumbnail image of the license plate.

OCR Text – The character string that the OCR engine matched to the current plate patch. If it was a misread, you can click or tap on the text, which takes you to the on-screen keypad where you can correct the license plate and flag it as a misread.

Note: The plate will then be saved as a misread and can only be viewed from the Misreads screen.

Overview Image – An overview image of the vehicle, displayed in color when available.

Target – A person of interest associated with the plate. If a hit has associated targets, the number of targets found will display at the top of the Hits screen. The user can click on that message to display the target information. You can also access information on a target by pressing the **Target** button on the Admin Main Menu.

Database – In the center of the Hits screen, the database that the plate was found in will be listed.

4.4.1 Hits *(continued)*

Information – Any information related to the vehicle that has been extracted from the database where the VLP was found will appear in text on the right side of the screen. Information manually added by the user will appear in the large text box at the bottom of the screen.

Typically, a database can contain:

- The VLP,
- Vehicle color, make and model,
- An action to take with the vehicle,
- A reason for the action, and
- General information about the offending vehicle.

The buttons around the edges of screen (listed from the top left, down, across, and up the right side) provide other functions:

Add Intel – Here you can add information about a particular hit prior to synchronization to the BOSS. For instance, you might add information about the arrest or violation. (*see Section 4.4.1.1 Add VLP Intel*)

Misread – Pressing **Misread** will flag and confirm a hit as misread. In wireless synchronization this button will be available only until the hit has been synced to BOSS.

Esc – Returns to the previous window.

Prev – Moves to the previous record. Available if more than one hit has been recorded during the shift.

Current/Total (Records) – At the center bottom of the screen, shows the number of the record being displayed and the total number of records. For example, 15/60 means that this is the 15th hit recorded out of a total of 60 hits made during the shift.

Next – Moves to the next record. Available if more than one hit has been recorded during the shift.

Save – Preserves any changes.

Jump – Allows you to move to a specific record, within the current database, by using the keypad to enter data. For example, if there are 600 hits in the system, you can enter 550 to begin the search with that record, instead of having to scroll through all the hits.

Set Disp – By selecting **Set Disp**, you will be prompted to report on the disposition of the hit in one of the categories defined by your System Administrator (Arrest Made, Vehicle Recovered, Surveillance Established, Towed, etc.). The approved dispositions will appear in the large text box. These dispositions are reported to the BOSS system and allow for easy reporting on results (dispositions) generated by 3M License Plate Capture Software.

Next DB – Moves to the next database that produced a hit alert.

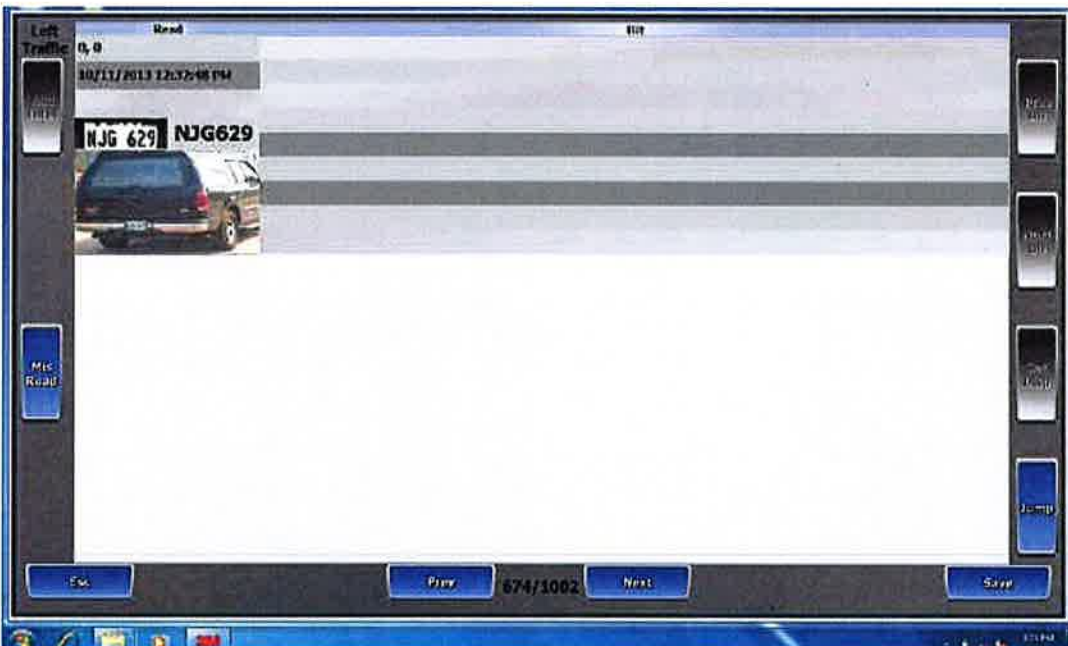
Prev DB – Moves to the previous database that produced a hit alert.

Current/Total (Databases) – At the top right of the screen, shows which database the information displayed about the hit comes from and how many databases the hit was found in. For example, 1/3 means that you are viewing information from the first of the three databases that produced hits.

4.4.1.1 Add VLP Intel

Pressing the **Add Intel** buttons opens the Add VLP Intel screen. Possible outcomes for the hit (Towed, Arrest, Not Recovered, and Misc) are listed across the top of the screen. Press the keypad to enter additional information about the hit in the text box. Press **Save** to save the data entered, which will now also appear on the Hits screen for this record. The Add Intel feature is available prior to synchronization to the BOSS.

4.4.2 Reads



To review reads you can access the Reads screen from either the Review screen or the Live View screen. The Reads screen is the general image review area.

At the top of the screen there is information about the specific read:

Camera Name – Displays the name of the camera that captured the read.

GPS Location – Your vehicle location at the time of the read. The coordinates are received from a GPS device if one is attached.

Date and Time Stamp – Displays the date and time when the vehicle image was recorded.

Patch Image – Shows a thumbnail image of the license plate.

OCR Text – The character string that the OCR engine matched to the current plate patch. If it was a misread, you can click or tap on the text, which takes you to the on-screen keypad where you can correct the license plate and flag it as a misread.

Note: The plate will then be saved as a misread and can only be viewed from the Misreads screen.

Overview Image – Displays an overview image of the vehicle, in color when available.

4.4.2 Reads *(continued)*

The buttons around the edges of screen (listed from the top left, down, across, and up the right side) provide other functions:

Add Intel – This button is grayed out (unavailable) on the reads screen because additional information doesn't need to be added to a read.

Misread – Pressing **Misread** will flag and confirm a read or hit as misread. The user is not expected to correct the read at that time. In wireless synchronization, available only until the read has been synced to BOSS.

Esc – Returns to the previous window.

Prev – Moves to the previous record.

Current/Total (Records) – These numbers, at the center bottom shows the number of the read record being displayed and the total number of reads. For example, 5/40 means that this is the fifth read recorded out of a total of 40 reads made during the shift.

Next – Moves to the next record.

Save – Preserves any changes.

Jump – Allows you to move to a specific record, within the current database, by using the keypad to enter data.

Set Disp – This button is grayed out (unavailable) on the Reads screen because, when there is not a hit, no action needs to be taken.

Next DB – This button is grayed out because reads are not found in any databases.

Prev DB – This button is grayed out because reads are not found in any databases.

4.4.3 Misreads

When a license plate hit or read has been marked as a misread, it will be listed in this screen. Using the Misreads screen, you can edit or update misreads.

Camera Name – Displays the name of the camera that captured the read.

GPS Location – The location of the 3M License Plate Capture Software vehicle at the time of the read. The coordinates are received from a GPS device if one is attached.

Date and Time Stamp – Displays the date and time when the vehicle image was recorded.

Patch Image – Shows a thumbnail image of the license plate.

OCR Text – The character string that the OCR engine matched to the current plate patch. If it was misread, you can click or tap on the text, which takes you to the on-screen keypad where you can correct the license plate.

Overview Image – Displays an overview image of the vehicle, in color when available.

Add Intel – This button is grayed out on the Misreads screen.

Misread – This button is grayed out on the Misreads screen.

Set Disp – This button is available on the Misreads screen only if the misread was originally a hit. Otherwise, it will be grayed out (unavailable).

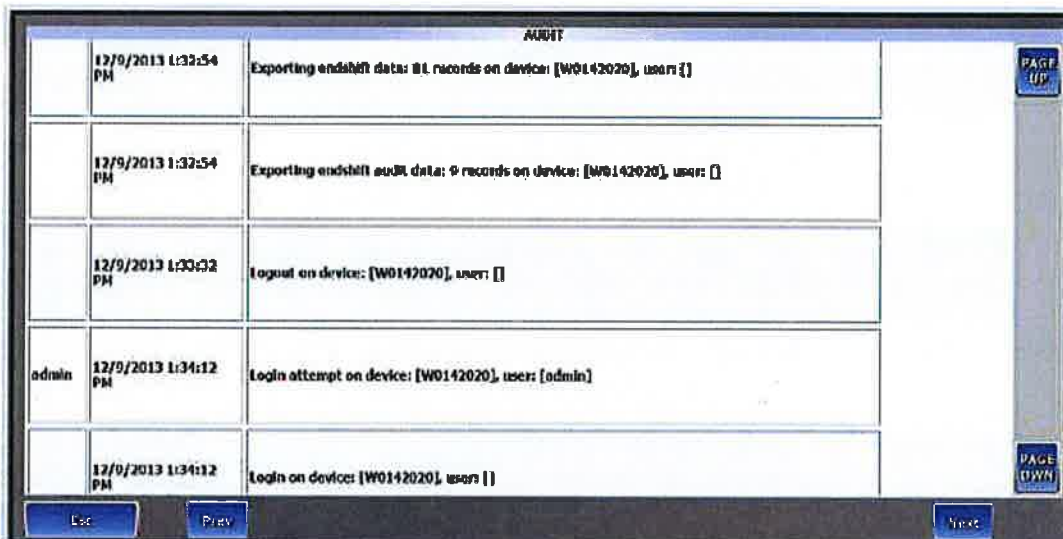
Prev DB – This button is grayed out on the Misreads screen.

Next DB – This button is grayed out on the Misreads screen.

Jump – Allows you to move to a specific record, within the current database, by using the keypad to enter data.

4.4.4 Audits

The Audits screen provides a log of various actions taken during the current shift, including searches, synchronizations, hits, etc. Performing an End Shift or syncing the database clears the log.



AUDIT		
12/9/2013 1:32:54 PM		Exporting endshift data: 11 records on device: [W0142020], user: []
12/9/2013 1:32:54 PM		Exporting endshift audit data: 9 records on device: [W0142020], user: []
12/9/2013 1:33:33 PM		Logout on device: [W0142020], user: []
admin	12/9/2013 1:34:12 PM	Login attempt on device: [W0142020], user: [admin]
	12/9/2013 1:34:12 PM	Login on device: [W0142020], user: []

Navigation buttons: Esc, Prev, Next, PAGE UP, PAGE DOWN

4.4.5 Databases

The Database screen is opened by pressing **Database** from the Review or the Admin screen. Databases can be toggled on and off and deleted from this screen in each individual 3M License Plate Capture Software vehicle.

Database Name — Displays the name of the database (BOSS hotlist) in the field, along with the date and time stamp showing the last database synchronization.

Priority — Database priority is shown by the number in the second column (100-999), as determined by the System Administrator. The lower the number, the higher the database priority; that is, a hotlist with a priority of 100 has the highest priority. By default, the Manual Reports database created by the 3M License Plate Capture Software has a priority of 500.

Delete — Removes the database from the current session. Because databases are managed in BOSS, if the deleted database has not been removed from the BOSS deployment list, it could be added back on the next synchronization.

Trigger/No Trg — If **Trigger** is on, the software sends a signal to a port on the mobile processor and any device (such as a video camera) connected through this port.

On/Off — Database status indicator. A green **On** button indicates that the database is active. A red **Off** button shows that the database is inactive and hits will not be generated from that database.

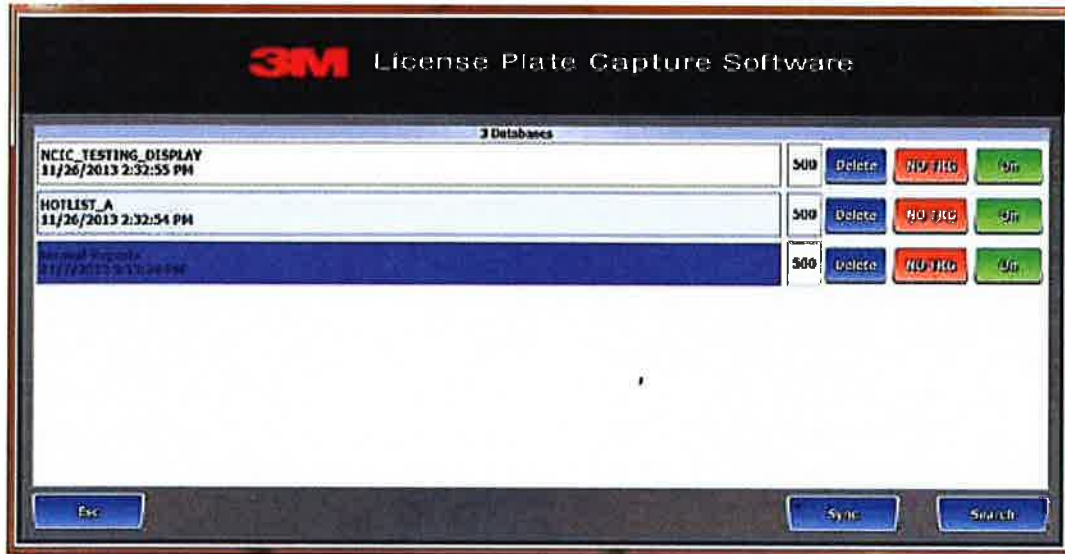
Prev — Displays the previous page of listed databases.

Next — Displays the next page of listed databases.

Esc — Returns the user to the previous screen.

Sync — Causes the 3M License Plate Capture Software to check for new data and add it to the current database. Old data is also removed from the software.

Search — Opens the Search screen.



4.4.5.1 Activating and Deactivating Databases

A database can be toggled by pressing the **On/Off** button beside the database name. If a database is active, plates will be compared against it. If a database is inactive, it will be ignored when plates are being checked. Active databases are highlighted in green. The steps are as follows:

1. From the Database screen, scroll to find the database to activate or deactivate. If there are more databases than the screen can display at once, use the **Next** and **Prev** buttons to page through them.
2. To activate or deactivate a database, click **On** or **Off** next to the database name. The button's color will change from green to red, or vice versa, to reflect the change.
3. The database can be reactivated by reversing the process.

Pressing **Delete** will remove both active and deactivated database from your current session with 3M License Plate Capture Software. The database may reappear after the software is next synced to BOSS.

4.5 Begin Shift

A "shift" typically means the user's tour of duty and/or the amount of time when he/she starts a shift and ends a shift. The 3M License Plate Capture Software imports and stores data that is used during a shift, such as BOSS hotlists, dispositions, and targets.

If the 3M License Plate Capture Software has been set by the Administrator to Disk Sync (e.g., to sync to a USB flash drive), check to confirm that you have access to the synchronization location before attempting **Begin Shift**. If the 3M License Plate Capture Software has been set up to sync over a wireless network, it will do so automatically when the application starts and when you press **Begin Shift**.

At the start of a new shift, after you have logged on and the Live View screen appears, press **Begin Shift** twice, which (1) synchronizes the 3M License Plate Capture Software with the databases and other information and (2) purges any plate numbers that have been added to the Manual Reports database. After you press **Begin Shift**, the status of any updates will be displayed.

Depending on the synchronize configuration in BOSS, whenever synchronization occurs, BOSS can transfer only the changes made to a database(s) rather than transferring the entire database(s). This is particularly important when working with very large database files because it will reduce the amount of data transferred over the network. *See the 3M Back Office System Software User's Manual for more information.*

4.6 End Shift

At the end of a shift, saved data should be exported either wirelessly or via the USB flash drive, to the central database(s) in the 3M Back Office System Software. No data is lost if the 3M License Plate Capture Software is closed without synchronizing or using the End Shift command.

To export the current data and end the shift, press **End Shift** twice. If using a USB flash drive to store the data, remove it from the MDC or from the mobile processor and follow the procedures in the 3M Back Office System Software User's Manual to download it to BOSS.

End Shift purges previous reads from the local database as well as the Manual Reports database. Pressing **End Shift**, even in a wireless setup, syncs any data not yet synced to the 3M Back Office System Software and then removes it.

If the 3M License Plate Capture Software is set to Disk Sync, check to confirm that you have access to the synchronization location before attempting an **End Shift**.

4.7 Cam Mode

Clicking the **Cam Mode** button allows you to cycle through the Camera configurations that have been added to the system. In those configurations the cameras being displayed on the Live View screen can be changed.

By default there are two configurations created, **Parking** and **Traffic**, which can be set up so that the cameras associated with those modes are displayed on the Live View screen. For example, when the system is being used to capture reads in a parking lot, the Cam Mode can be set to **Parking**. In the Parking configuration, the images could be coming from the cameras positioned in the middle or back of the car will be displayed on the Live View screen. The front cameras can be selected as the hidden cameras. Reads from the front view cameras will be captured in the database but will not be displayed on the Live View screen. The camera's current mode displays on the Cam Mode button.

4.8 Admin Main Menu

Pressing **Admin** on the Live View screen takes you to the Admin Main Menu, a central location for accessing the 3M License Plate Capture Software's functions, including all those that require administrative privileges. The Admin Main Menu also displays the cameras configured in the system, the GPS location, and if a camera is active or not.

IMPORTANT: While you can perform administrative duties from within the 3M License Plate Capture Software, the 3M Back Office System Software is used to perform these functions across multiple 3M License Plate Capture Software deployments. *Please refer to the BOSS User's Manual for additional information.*

Device	Active	GPS
Front Left	3:41:50 PM 12/25/2013	35.921109, -84.136485
Front Right	3:46:40 PM 12/25/2013	35.921009, -84.136634
Right Park	3:48:38 PM 12/25/2013	35.921033, -84.136634
Rear Face	3:45:49 PM 12/25/2013	35.921030, -84.136638

The Device Status table provides a status of the devices connected to the Mobile Processor. The information displayed includes:

Device – a device that is connected to the Mobile Processor. It is named in the Admin\Camera configuration screen.

Active – The recent status of the device, includes the time and date of last confirmed connection between the Mobile Processor and the attached camera.

GPS – The GPS coordinates captured at the time of the last confirmed connection.

The screens available from Admin Main Menu are described in the sections that follow. Note that the Review, Live View, and Database screens have already been described in Sections 4.2 (Live View), 4.4 (Review), and 4.4.5 (Database). The **Logout** button logs the current user out of the system.

4.8.1 Review

Opens the Review screen to display all data collected during the current shift or before the user activated the **End Shift** button. *For a description of the functions available on the Review screen, go to Section 4.4.*

4.8.2 Location

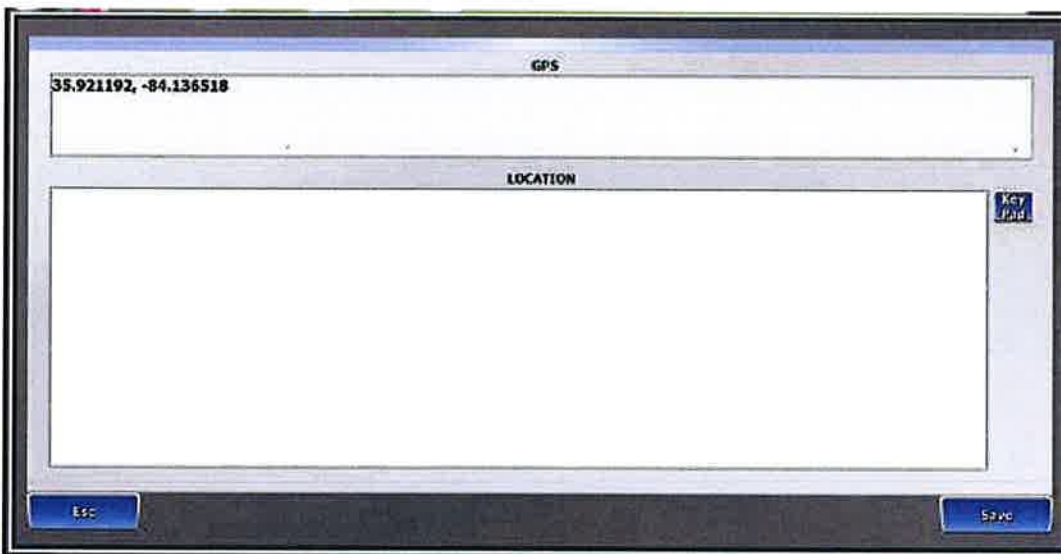
The Location screen provides an additional area where the user is able to associate the current GPS coordinates with a location. This feature is not currently used and will be redesigned in a future version.

GPS Text Box – When an attached GPS device resolves the current coordinates, they will be displayed here when the screen is opened.

Location Text Box – This is a free-text entry box. The user can enter a location description that is associated with the GPS coordinates listed in the GPS text box.

Save – Press the Save button to save the information.

Esc – Return to the Admin Menu screen.



The screenshot shows a software interface for the 'Location' screen. At the top, there is a header bar with the title 'GPS'. Below this, a text box displays the coordinates '35.921192, -84.136518'. Underneath the coordinates is a large, empty text box labeled 'LOCATION' at its top center. To the right of the 'LOCATION' text box, there is a small blue button labeled 'Key Pad'. At the bottom of the interface, there are two buttons: 'Esc' on the left and 'Save' on the right.

4.8.3 Cam Setup

The Cam Setup screen lets you preview camera or lane images. The buttons allow the user to select each of the configured cameras.

Administrators can also preview the camera output after adding or editing and configuring cameras (*as described in Sections 4.8.6.11 – 4.8.6.13*). The exact preview buttons displayed on the screen will depend on the number of cameras installed and how they are configured.

IR – Displays the infrared images from the selected camera.

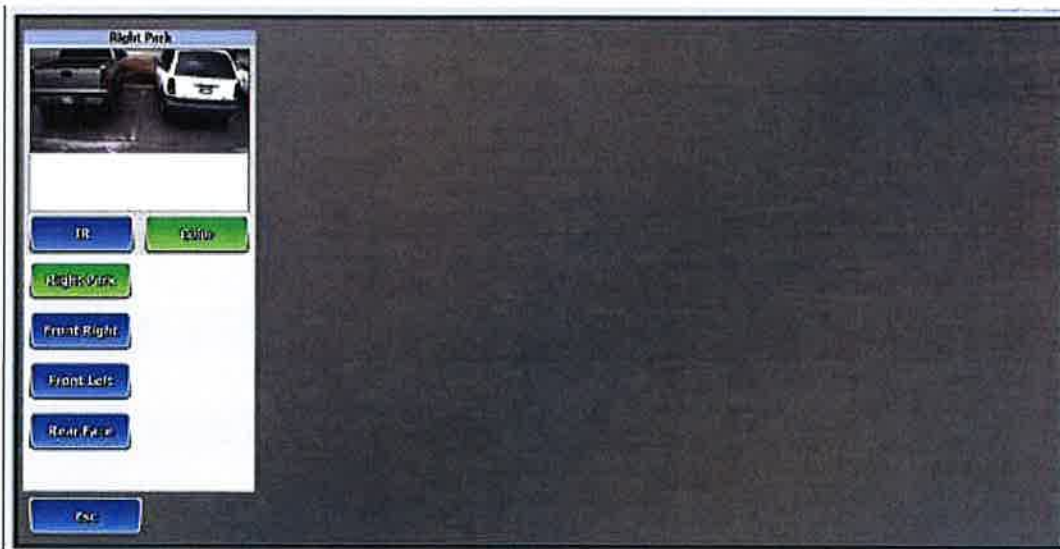
Color – Displays the color input from the selected camera.

Camera Name (also called Lane Name) – During camera configuration, the Administrator assigns a name to each camera. The camera name will display above the image, and a button will show for each named camera. In the screen shot example, the cameras are **Right Park, Front Right, Front Left, and Rear Face**.

Esc – Return to the previously viewed screen.

To verify the camera output and proper alignment of each configured camera:

1. Click **Cam Setup** to display the Cam Setup screen shown below.
2. On this screen, click a camera button to view a specific camera output.



4.8.4 Database

The Database screen displays active databases (BOSS hotlists) and allows you to turn lists on or off, search through the lists, and delete currently active lists. *The functions of the Database screen are described in Section 4.4.5.*

4.8.5 Targets

The Targets screen displays information about suspects matched with license plates. Targets are downloaded into the 3M License Plate Capture Software's Targets list from the 3M Back Office System Software.

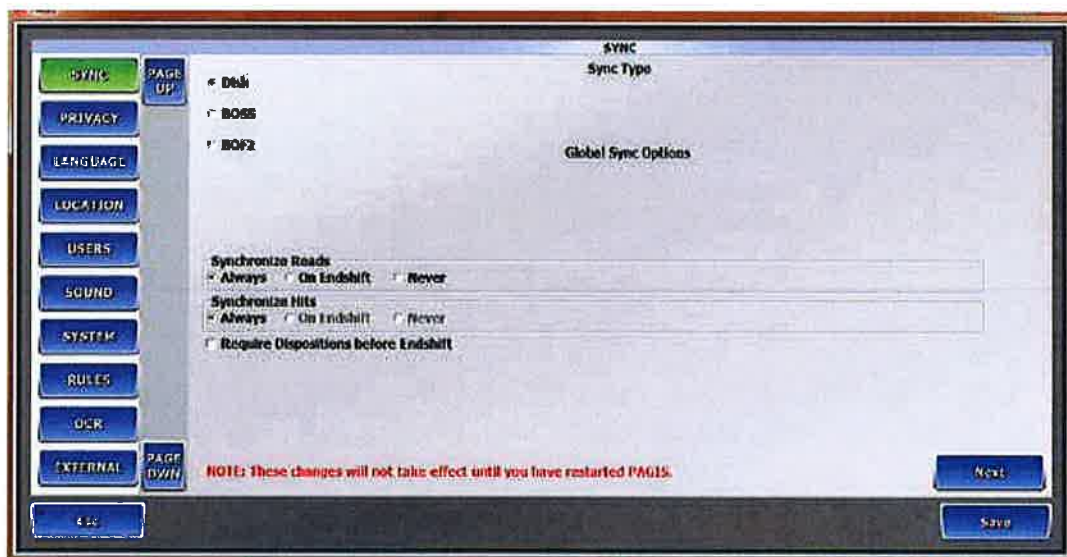
Prev – Displays the previous entry.

Next – Displays the next entry.

Esc – Returns to the previously viewed screen.

Jump – Allows you to move to a specified record using the keypad.

4.8.6 Admin



The second Admin screen controls the 3M License Plate Capture Software options set by the Administrator, such as language, sounds, users and user privileges, GPS unit, cameras, sync folder, access to external databases and devices, configurations, and system settings. These options are explained in the following sections.

The buttons to access these functions are listed on the left side of the Admin screen. Navigational and other functional buttons on this Admin screen are:

Page Up – Displays the previous set of options.

Page Down – Displays the next set of options.

Esc – Returns to the Admin Main Menu screen.

Save – Preserves any changes made.

4.8.6.1 Sync

The 3M License Plate Capture Software stores information in local databases, which can be synchronized with other databases. If the 3M License Plate Capture Software is configured to communicate wirelessly to BOSS, the user can manually start a sync by pressing the **Begin Shift**, the **End Shift**, or the Sync button. Synchronization is also done automatically. If the software is configured to transfer information via disk sync, the files that need to be synced are stored in a synchronization folder. There are two synchronization folders: Begin Shift and End Shift. The Begin Shift folder contains data to be imported into the 3M License Plate Capture Software; the End Shift folder holds data exported at the end of a shift.

On the Sync screen Administrators can set or change the synchronization method and specify the location of the sync folder used by the 3M License Plate Capture Software to import and export data at the beginning and end of a shift. By default, the sync folder is set to the local disk. However, you can establish synchronization folders with any path name. Both synchronization to disk and wireless synchronization to the 3M Back Office System Software are available on the Sync screen. A third sync option, BOF2, or Instation, is mostly used in Europe and is described in Appendix 6.5.

Note: The changes made in the Sync screens will not take effect until the 3M License Plate Capture Software has been restarted.

4.8.6.1.1 Synchronization to a Local Disk or Flash Drive

If you choose **Disk**, with the sync folders residing on a USB flash drive, make sure the flash drive assigned to the user has adequate space to accommodate the file size of all the databases that will be imported and exported. Folder sizes vary depending upon the number of entries and the number of databases.

1. At the top of the Sync screen, select **Disk** for a local disk (on the MDC or the mobile processor) or USB flash drive.
2. On Global Sync Options follow the steps in Section 4.8.6.1.3.
3. Then press **Next**.
4. In the text box that displays, use either the keypad or the keyboard to enter the folder's location. By default, Drive C is selected.

Note: Since most customers who use the Disk mode store and transfer files on a USB flash drive, the path name would be that for the flash drive.

5. Under Disk Options, make a choice whether to:
 - a. **Delete Begin Shift data on sync:** If this option is selected, the sync folder will be deleted once all of the data has been imported into the 3M License Plate Capture Software. This option is "on" by default.
 - b. **Encrypt End Shift data:** If this option is selected, the end shift files created by the 3M License Plate Capture Software will be encrypted. This option is "off" by default.
 - c. **Copy End Shift data on sync:** If this option is selected, the End Shift folder will be created and the End Shift files will be stored there. This option is "on" by default.

Note: If this option is "off," the End Shift files will not be created. The shift data will be cleared, but no reads will be sent to BOSS.

4.8.6.1.1 Synchronization to a Local Disk or Flash Drive *(continued)*

- d. Keep only updated databases. If this option is selected, any databases that were not updated during Begin Shift will be considered outdated and removed. This option is "off" by default.
6. Press **Save** to save these settings.
7. Press **Esc** to return to the Admin screen, or press **Prev** to return to the previous Sync screen.

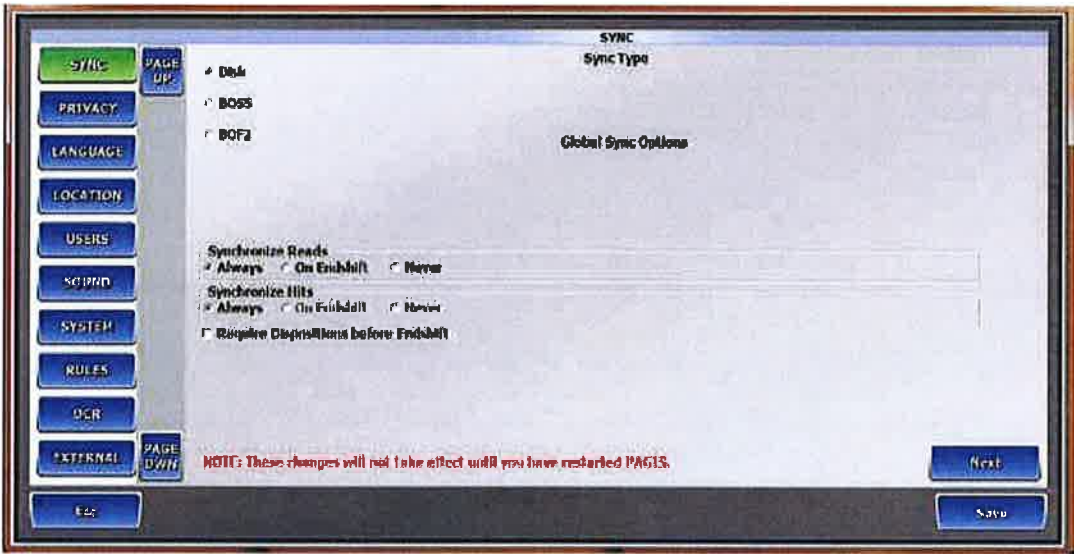
4.8.6.1.2 Wireless Synchronization with BOSS

If you choose to establish BOSS as the synchronization method, the user **MUST** have wireless access to the network to successfully sync at the beginning and end of a shift. You must also have an IP address of the BOSS server that is reachable (i.e., able to receive a reply to a ping). After syncing with the 3M Back Office System Software, data is flagged in the database to prevent duplicate syncing.

1. At the top of the Sync screen, select **BOSS** to sync by wireless access to the 3M Back Office System Software.
2. On Global Sync Options, follow the steps in Section 4.8.6.1.3.
3. Then press **Next**.
4. In the text boxes that display under BOSS Options, use either the keypad or the keyboard to enter the primary and secondary IP addresses and the sync port of the 3M Back Office System Software server. The default is port 8092.
5. Also under BOSS Options, decide whether to:
 - a. Enable data encryption by checking "Encrypt Transfers," and
 - b. To send data to BOSS when a shift ends by checking "Synchronize End Shift Data." This option is on by default.
6. Press **Save** to save the changes.
7. Press **Esc** to return to the Admin screen, or press **Prev** to return to the previous Sync screen.

4.8.6.1.3 Global Sync Options

The 3M License Plate Capture Software can also provide usage information to the 3M Back Office System Software system so statistical reports can be generated, while allowing privacy rules to be adhered to. Because organizations differ in their privacy rules and in the types of information they want to capture, Global Sync Options on the Sync screen help meet those varying needs.



Under Global Sync Options there are two settings: **Reads** and **Hits**. Each of these has three options: **Always**, **On Endshift**, and **Never**. The option selected for Reads controls which options are available for Hits:

- Selecting **Always** means that reads and hits are always going to be synced to the 3M Back Office System Software.
- Selecting **On Endshift** means that syncing will only occur upon End Shift or Sync.
- Selecting **Never** means that information gathered in the 3M License Plate Capture Software will be “sanitized” as it is being sent to the 3M Back Office System Software.

Note: If the 3M License Plate Capture Software system is configured for the disk sync type, then the **Always** and **On Endshift** functions are the same.

The Reads selection will determine the options available for hits:

For the Reads Option Selected:	<u>Always</u>	<u>On Endshift</u>	<u>Never</u>
The Available Hits Options Are:	Always	Always	Always
			On Endshift
		On Endshift	Never

Checking the “Require Dispositions before Endshift” box will require the user to enter a disposition (result or action taken) for each of the hits that occurred since the last sync.

4.8.6.2 Privacy Settings

PRIVACY

Purge Options
☒ Never ☐ On Startup

Purge Database Older Than

Days	1
Hours	0
Minutes	0

Purge Hits Older Than

Days	1
Hours	0
Minutes	0

Purge Reads Older Than

Days	1
Hours	0
Minutes	0

Esc Save

The 2.7 series of the 3M License Plate Capture Software offers privacy settings, a new feature that allows the Administrator to ensure the validity and confidentiality of the information obtained by the ALPR system. This feature is completely configurable, providing an operationally effective means of ensuring that regulatory or procedural requirements are adhered to.

Using the settings on the Privacy screen ensures that information captured by and stored in the system can be removed or obscured ("sanitized") by the Administrator in a controlled manner. These configurable settings control the length of time, in days, hours, and minutes, that read or hit information can be maintained. Therefore, an individual's personal and identifiable information, namely their license plate image and deciphered license plate number, is removed from a saved record. These settings also permit the Administrator to control the currency and validity of the databases being used by the system.

4.8.6.2.1 Never Option

The **Never** option allows a 3M License Plate Capture Software system to continue without the influence of Privacy settings. If this option is selected, the users of the 3M License Plate Capture Software system will continue to be responsible for any actions required to protect the stored information and to ensure the validity of the databases being used.

Note: If the configurable time settings are set to 0, as they are by default, the system responds as if the Never option has been chosen.

If the **Never** option is selected, the time settings will be disabled. In the event that the Privacy settings had been previously enabled and time information had been configured, those settings will be retained even if the system is later reset to **Never**.

4.8.6.2.2 On Startup Option

Selecting **On Startup** allows the System Administrator to configure how the system manages databases, hits, and reads; these settings are described below. With **On Startup** selected, each time the 3M License Plate Capture Software application is restarted, it checks these settings and evaluates whether existing information has exceeded the allowable age.

4.8.6.2.3 Purge Database Older Than Setting

This setting allows the Administrator to control how frequently the databases stored on the system are removed. For example, if a database, "Expired Plates Hotlist," was added to the 3M License Plate Capture Software 3 days ago and the **Purge Database Older Than** settings are set to 2 days, then the next time the 3M License Plate Capture Software is restarted, "Expired Plates Hotlist" will be removed.

4.8.6.2.4 Purge Hits Older Than Setting

This setting allows the Administrator to control how frequently the hits stored in the 3M License Plate Capture Software are sanitized. For example, if any hits in the 3M License Plate Capture Software were captured during a shift a week earlier (7 days ago) and **Purge Hits Older Than** is set to 4 days and 5 hours, then the next time the 3M License Plate Capture Software is restarted, those hits will be sanitized.

4.8.6.2.5 Purge Reads Older Than Setting

This setting allows the Administrator to control how frequently the reads stored in the 3M License Plate Capture Software are sanitized. For example, if reads were captured during a shift a month earlier (30 days ago) and the **Purge Reads Older Than** settings are set to 25 days, the next time the 3M License Plate Capture Software is restarted, reads more than 25 days old will be sanitized.

IMPORTANT: Once reads and hits have been sanitized, they can no longer be viewed in the 3M License Plate Capture Software. However, they are retained in the system until an **End Shift** or **Sync** is performed.

4.8.6.3 Language

The Language screen lets you change the language assignment used in the 3M License Plate Capture Software. Available languages are listed in the drop-down box and are added during the installation process.

4.8.6.4 Location

Any name entered in the location field is listed as the default system location. The information is not tied to the GPS location.

4.8.6.5 Users

The Users screen lets you add users, set their privileges, and delete users from the 3M License Plate Capture Software.

IMPORTANT: Adding new users through the 3M License Plate Capture Software should be limited to those customers who are not syncing to the 3M Back Office System Software.

For customers deploying both the 3M License Plate Capture Software and BOSS, user accounts created in the 3M License Plate Capture Software will be overwritten by the users defined in the 3M Back Office System Software during the next sync.

You can scroll through the user list by pressing **Page Up** and **Page Down**.

Account information for each user is listed in unlabeled rows with the following fields:

Badge No. (Username) – Add a new username or badge number for an existing user. The username field will accept up to 15 alphanumeric characters.

Password – Enter a password to associate with the username. The password field will accept up to 15 alphanumeric characters.

Key Pad – Displays an on-screen keypad.

Privileges – Select the privileges associated with the entered username by clicking on the buttons defined below. After a privilege is activated, the button changes to green.

- **Sync** – Allows the user to synchronize files.
- **Ext** – Allows the user to access external databases.
- **Adm** – Allows the user to configure the 3M License Plate Capture Software, add and remove users, and change the options.

DO NOT choose the Adm button unless the user is being granted administrative rights.

Del – Remove a user from the list. The user is deleted the second time the Del button is pressed.

Add – Add a new user with the options selected.

Save – Add the new user to the database.

Esc – Return to the previous screen without saving changes.

The available combinations of privilege options are shown in the table (next page) according to the area of function to which the privilege applies.

4.8.6.5 Users (continued)

	Sync Only	Ext Only	Adm Only	Ext + Adm	Sync + Ext	Sync + Adm	Sync + Ext + Adm*
Begin Shift	•	x	x	x	•	•	•
End Shift	•	x	x	x	•	•	•
Admin	x	x	•	•	x	•	•
Sync	•	x	x	x	•	•	•

• = The user has privilege X = The user doesn't have the privilege

*Sync + Ext + Adm are the privileges pre-set for the default logon setting (username = admin; password blank).

Note: Creating a new user in the 3M License Plate Capture Software deactivates the default user account. (See Section 4.1.1.)

4.8.6.6 Sound

The Sound screen associates available sound files with specific alerts and actions. You can also toggle sounds off and on by pressing **On** or **Off**. Sounds are active when the button is **On** (green) and deactivated when the button is **Off** (red).

Choosing sounds is an optional feature. Sounds are preset in the 3M License Plate Capture Software and may be modified by an Administrator. By default, the 3M License Plate Capture Software will play a sound to notify the user when an event or "hit" is triggered. Sound files (.wav file format) are stored in the Sounds folder in the 3M License Plate Capture Software directory.

Tip: Custom sound files (.wav file format) may be uploaded into the Sounds folder of the 3M License Plate Capture Software directory by the Administrator. The user may identify the nature of the hit more easily if distinctive sounds are associated with different types of hits or events.

To disable or enable sounds:

1. Press **Sound** to open the Sound screen.
2. To toggle a sound to **On**, press the button showing **Off**. The button will change from red to green, and the sound will be on.
3. To test the sound, press **Play**.
4. To toggle a sound to **Off**, press the button showing **On**. The button will change from green to red and the sound will be off.

To change a sound associated with a specific predefined event:

1. Choose an event by scrolling through the list using **Page Up** or **Page Down** on the right side of the screen.
2. Select a new sound by pressing the ellipses (...) button to browse to and select a new sound file from the sound folder in the 3M License Plate Capture Software directory.
3. You can preview the sound by pressing the **Play** button.
4. Press **Save** to apply the changes.

4.8.6.7 System

The System screen determines external system connections and assigns connection string ports to cameras and to the external GPS unit. The GPS connection string refers most commonly to the COM port, although it may also refer to the IP address or serial port IP_Address:TCP_Port.

You can change the computer, ports, and GPS connection strings by clicking in the text box and entering the text using the keyboard or the keypad. Press the **Save** button to save changes. You must exit and restart the 3M License Plate Capture Software for any changes to take effect.

4.8.6.7.1 Configuring System Connection Strings

To set the COM ports:

1. From the System screen, verify that the appropriate system type is chosen. If necessary, choose the system type by clicking the button next to the desired type. When using the 3M Mobile ANPR/ALPR Processor, the default setting is "Default."
2. Verify that the GPS Connection String is correct (see next section). The default setting is "5."
3. Press **Save** to save the changes or **Esc** to return to the previous screen and cancel any modifications.
4. Restart the 3M License Plate Capture Software to activate any changes.

4.8.6.7.2 GPS Connection String

The GPS Connection String field is available when the Default, Microbus MPC2, or Motorola MW-810 system is selected. The GPS Module is a standard feature in the 3M License Plate Capture Software. The 3M License Plate Capture Software should be configured to work with the system-supplied GPS Module.

The GPS Connection String is blank when you are running client/server installation. The GPS Connection String is set to "5" when the 3M License Plate Capture Software is running on a mobile data computer, such as a laptop, or "6" when it is running on the 3M Mobile ANPR/ALPR Processor.

4.8.6.8 Rules

Rules provide a way to check for a commonly misread character and the read character as both options for a database match. For instance, "8" and "B" are sometimes mistaken. If the OCR engine reports a plate as ABC123, you might check both ABC123 and A8C123 against all databases to find a match. While you are less likely to miss a hit, the process can also produce more false hits. Verify that the plate read and the database match is the same.

To add a new rule on the Rules screen:

1. Click **Add** and enter a single character instance (the letter "O," for example), and enter a list of similar characters (letter "O", number "0", and letter "Q" in this example).
2. With this rule defined, anytime the system reads an "O", it will run the query for matching purposes as "O," "0," and "Q." The system will not do the same when it reads a "Q." Another rule would have to be entered to accomplish that.
3. The rule will be saved by clicking **Save**.

4.8.6.9 OCR

The OCR screen is used to enable inverse and square plate reads, to disable duplicate plate reads (if multiple cameras pick up the same plate), to show diagnostics, and to disable read correction. Each check box toggles the options: if a check mark appears, the option is active. If the box is empty, the option is disabled.

These options are explained in the table below.

Option	Action
JPEG Images	Use compressed .jpg images instead of full-resolution bitmaps. On by default. When this feature is activated, it minimizes storage requirements for collected data.
Inverse Plates	This feature can be useful for plates with a dark background and light lettering. Off by default. This option increases the processing load and therefore should remain disabled until it is needed due to the region.
Square Plates	Adjusts the read area for plates that are square instead of rectangular. Off by default.
Show Diagnostics	Shows a diagnostic screen if an error occurs. Off by default.
Disable Duplicate Read	Turns off duplicate reads. If the same plate is read by more than one camera within a short time frame, the duplicate is ignored. This minimizes storage requirements for the collected data and improves system metrics related to the number of reads. On by default.

4.8.6.10 External

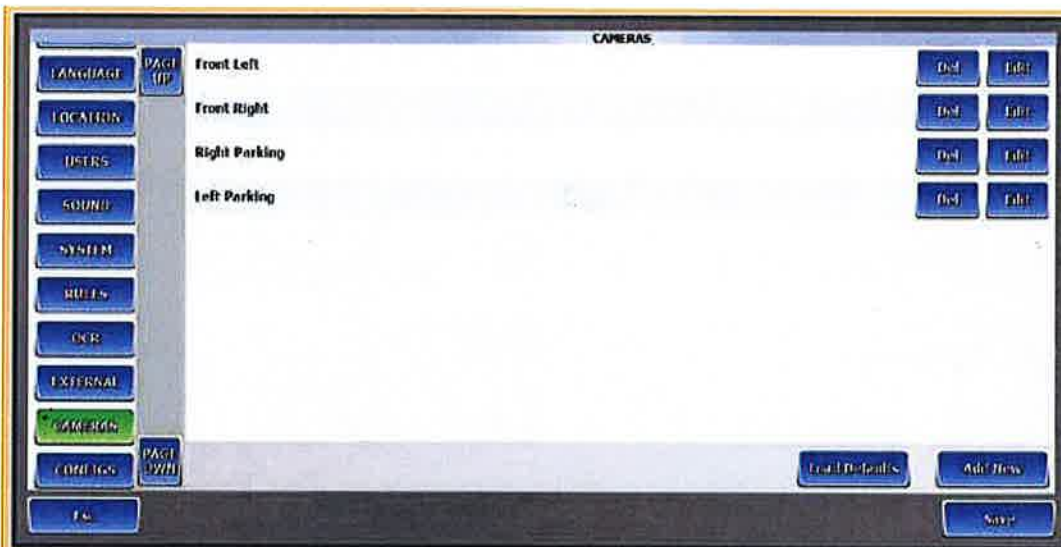
The External screen lets you connect the 3M License Plate Capture Software to an external database or device. To make this connection, click the red **Off** button to change it to a green **On** button and then press **Save**. Any changes made on this screen will take place after the 3M License Plate Capture Software is restarted.

Use the **Page Up** and **Page Down** buttons to scroll through the list of available databases and devices.

4.8.6.11 Cameras

The Cameras screen lets you add and identify specific cameras for use with the 3M License Plate Capture Software. Because the camera configurations setup using the Configs screen are associated with Camera or Lane Names, cameras must be identified or named. Otherwise, no options will be available in the drop-down boxes for Display and Hidden cameras on the Configs screen.

On the 3M License Plate Capture Software setup, the Cameras screen displays the default Camera Names. From this screen you can delete cameras, edit the Camera names, and add new cameras. Pressing **Load Defaults** on the Cameras screen will add sample cameras to the Cameras screen and sample configurations to the Configurations screen.



Adding cameras involves identifying or naming the cameras and configuring them. The following steps describe how to add a new camera from the Cameras screen. The steps must be repeated for each camera you add:

1. Press **Load Defaults**. Loading a default setting provides a base configuration to modify and is based upon a standard four-camera system. The defaults can also be used for testing purposes. Choosing a default also loads associated configuration files, which appear in the Configs screen. Select an **Edit** button to configure a camera.

Whether you are adding a new camera, or editing an active one, go through Steps 2 – 15 below to complete the setup.

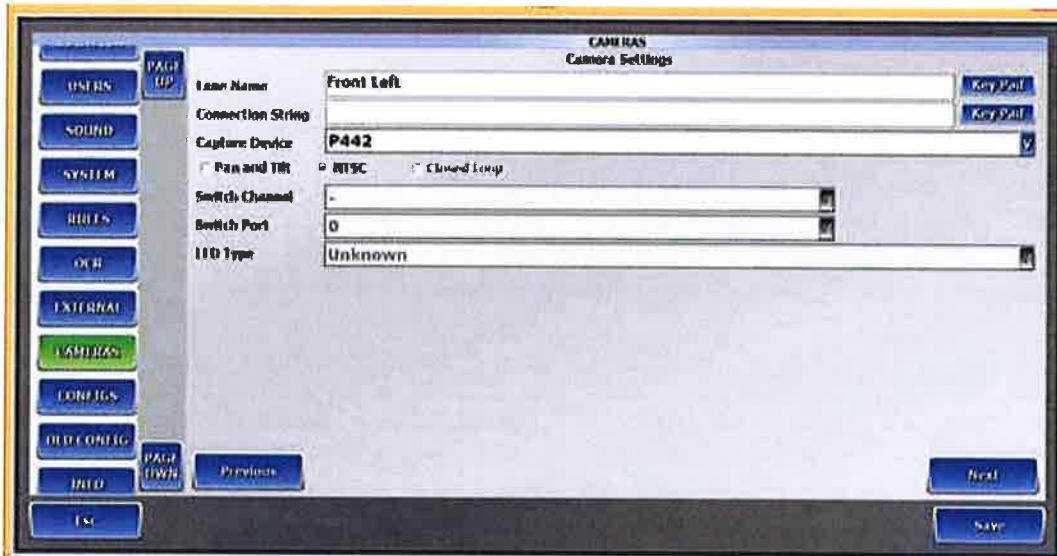
2. Either click the **Edit** button on a default camera, or click **Add New** to open the Camera Type screen, which will display the list of cameras supported by the 3M License Plate Capture Software: P362, Sony, Digital Eye Witness, CCTV, IR, TSS, and P632 Slate cameras.
3. Select the button for the type of camera to be used and then press **Next** to open the Camera Settings screen (shown on page 42).
4. On the Camera Settings screen, enter a Camera (or Lane) Name. You can use the default names (Right Traffic, Left Parking, etc.) or use the keypad to type in a new one.

Note: The Camera Name must be 11 characters or less in length. Otherwise, the positional indicators and the device status information will be incomplete.

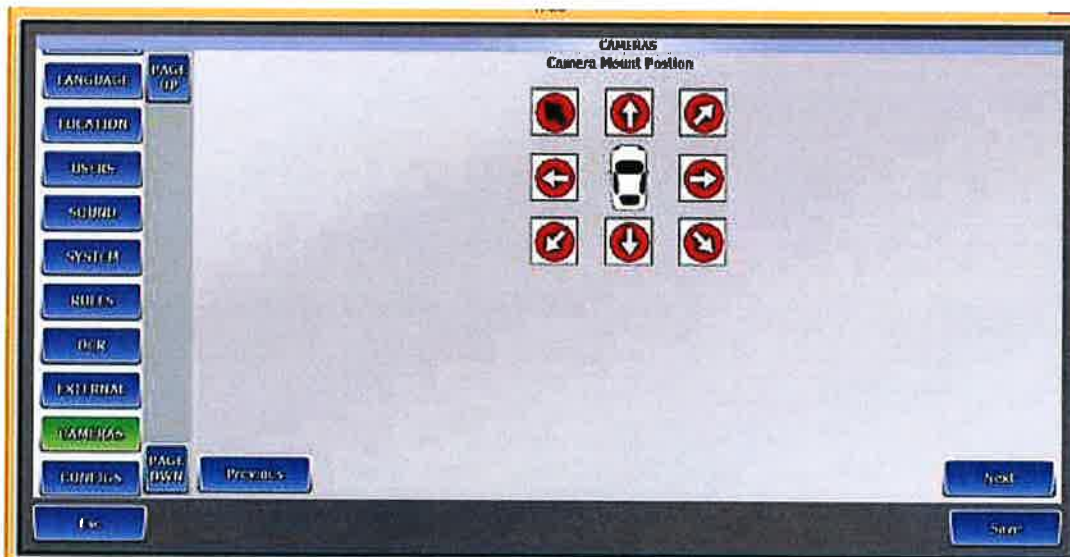
5. Enter the device Connection String, if necessary.
6. Enter the Capture Device, using the options available in the drop-down menu. P442 is the default.

4.8.6.11 Cameras (continued)

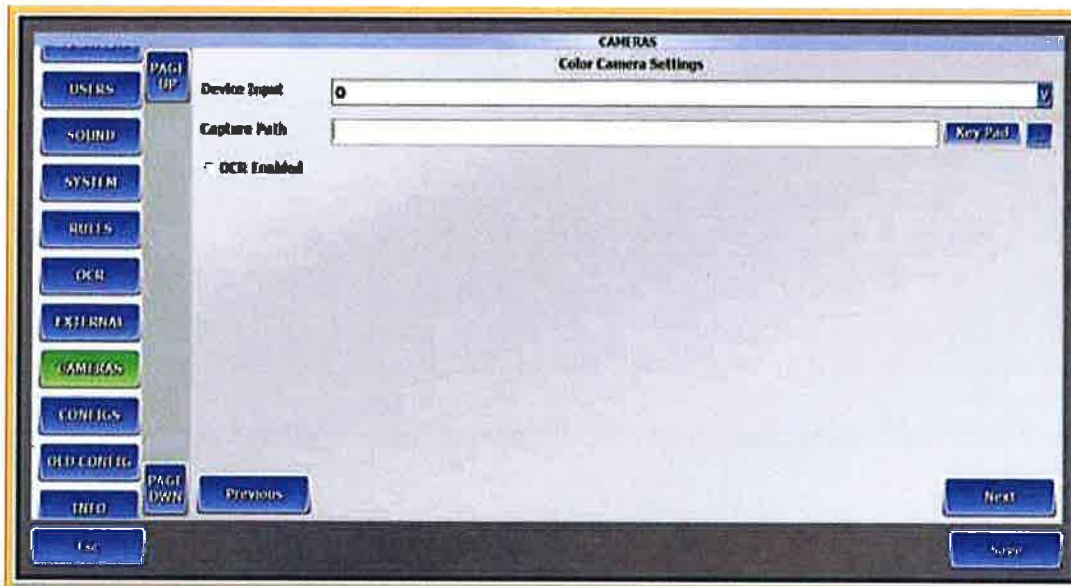
7. The Switch Channel and Switch port are network options. The LED type is related to the camera. By default these options are not available to change.
8. Press **Next** to open the Camera Mount Position screen.



9. On the Mount Position screen, these directional arrows represent the location of each Cameras and the direction they are pointing. Choose the desired option for the camera you are configuring by pressing one of the directional buttons. The arrow showing the chosen direction will appear in the display for that camera on the Live View screen when a hit has been detected.



10. Press **Next** to open the Color Camera Setting screen.



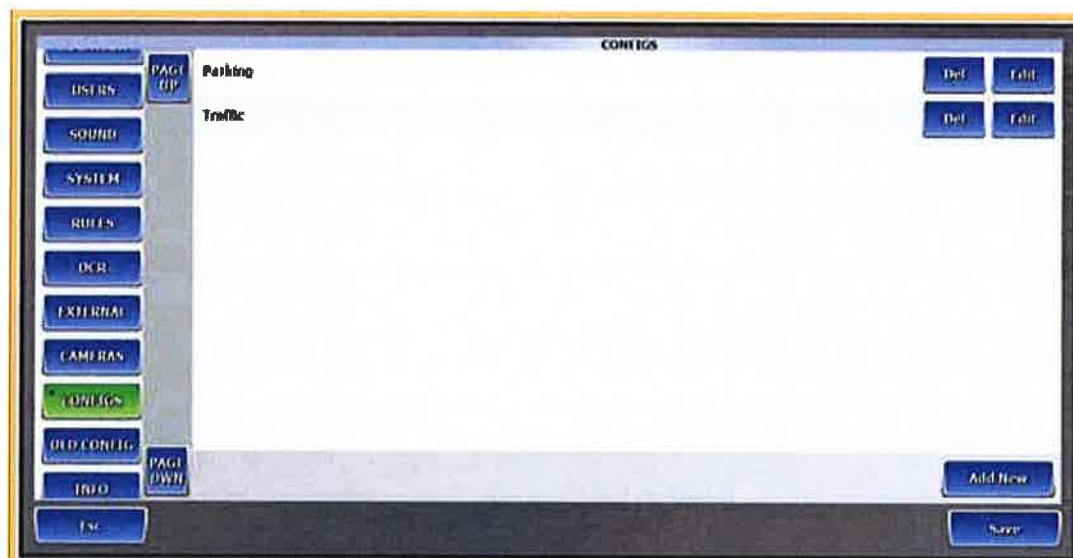
11. Select the device input option. For the first camera loaded select "0" for the Device Input value.
12. Using the keypad, enter a Capture Path for the camera, or press the ellipses (...) button to browse available paths. This is an optional step.
13. If the camera has a color lens only (and no IR lens), check "OCR enabled." The likelihood of a Color Lens only is very rare but is still addressed.

Note: Check the OCR Enabled box only for the IR lens of a 3M mobile camera. For certain states that do not have retro-reflective plates, optical character recognition may be performed from the image captured by the color lens of the camera. When OCR is performed on a color image, the processing requirements increase and the accuracy will be somewhat diminished relative to OCR from the infrared image.

14. Press **Next** to open the IR Camera Setting screen.
 15. The IR Settings screen has the same options as the Color Setting screen. Repeat Steps 11-13. It is important to ensure that the "OCR Enabled" is checked for the IR camera.
 16. Press **Save** to save the changes and return to the Cameras screen.
- Repeat these steps for each camera you are adding or editing.

4.8.6.12 Configs

The Configs screen allows you to define how the configured cameras are displayed on the Live View screen and to set the region of the country where the Mobile System is deployed. You can also use the Configs screen to set up multiple camera configurations for parking or traffic monitoring to replicate a particular driving environment. Up to four ALPR cameras can be activated, each with color overview and infrared. Each configuration provides customized settings for cameras and lanes.



If you have loaded a default camera setup, the Configs screen will be populated with the two default configurations: Traffic and Parking.

The buttons on the Configs screen are as follows:

Del – Removes the current configuration from the 3M License Plate Capture Software.

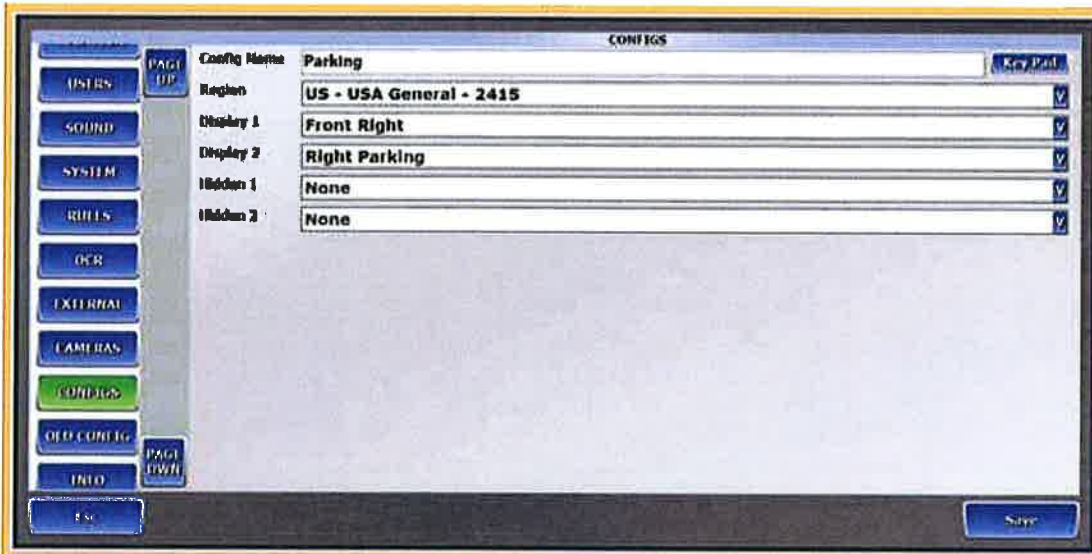
Edit – Opens the Edit Configs screen where you can modify settings for the selected configuration, including selecting a region and selecting which cameras to display and to hide.

Add New – Adds a new configuration to the 3M License Plate Capture Software and opens the Add Config screen.

Save – Preserves changes to the configurations.

Esc – Returns to the Main Menu.

When adding or editing a new configuration, you can assign each of the cameras you set up on the Cameras screen to Display 1, Display 2, Hidden 1, and Hidden 2, using drop-down boxes in each field on the second Configs screen (shown on page 45). While only two cameras may be displayed simultaneously on the MDC or monitor, all cameras can be processing and checking plates against the databases. When a defined “hidden” camera receives a database hit, an alert gives the user audible and visual confirmation of the hit, the Camera Name that captured the hit, and the positional arrow for that camera (if configured) as defined in Section 4.8.6.11 Step 9.



Config Name: The name of the configuration mode for the displayed and hidden cameras. When selected, this will be displayed on the Live screen's **Cam Mode** button. You can also define the region (e.g., entire US, a region, a given state), which will determine the options used by the OCR engine to interpret a captured license plate number.

Display 1: This camera is always displayed on the left-hand side of the Live View screen.

Display 2: This camera is always displayed on the right-hand side of the Live View screen.

Hidden 1 and 2: When populated, these cameras are functioning and performing OCR, but the images are not visible to the user. Hits and reads will still be generated by these cameras.

4.8.6.12.1 Adding a Camera Configuration

1. From the Configs screen press **Add New**.
2. Enter a Config Name in the text box: **Right Parking, Left Traffic, Parking, Traffic**, etc.
3. Choose the appropriate OCR Region from the drop-down box. The OCR engine for your region or state will already have been installed.
4. Choose options from the drop-down boxes for **Display 1, Display 2, Hidden 1, and Hidden 2**. The cameras configured/ listed on the Cameras screen are listed in the drop-down boxes. No matter how many ALPR cameras comprise your specific system, you have the option to have all of them processing data simultaneously if you list the cameras as "hidden."
5. Press **Save** to save the settings.

Repeat Steps 1 through 5 for any additional configurations.

6. Press **Esc** to return to the previous screen.

After the cameras have been configured, verify the camera input and proper alignment on the Cam Setup screen, as explained in Section 4.8.3. This screen provides a preview of camera output for each of the configured cameras.

4.8.6.13 Old Config

The Old Config screen provides all-in-one access to the camera and configuration settings for configurations imported from previous 3M License Plate Capture Software installations. This screen is not meant for setting up new configurations.

When the 3M License Plate Capture Software is upgraded, the old configurations from the prior version appear in the Old Configs screen. These configurations can still be used. The Old Configs screen format is the same as prior versions with all information for a configuration available on one screen.

While these instructions will create a working configuration, the Configs screen is the recommended and simpler method.

To use the Old Config screen:

1. Enter a name for the configuration.
2. Select the OCR Region.

Steps 3 through 13 should be repeated for each camera. For a traffic configuration, you will repeat the steps twice, once for the front left camera and again for the front right camera.

3. Select the Lane to configure from the Lane drop-down box.
 - a. **Display 1** refers to the camera that will be displayed on the left-hand side of the Live View screen.
 - b. **Display 2** refers to the camera that will be displayed on the right-hand side of the Live View screen.
 - c. **Hidden 1** and **2** refer to cameras that perform OCR, but are not displayed on the Live View screen; hits and reads will still be generated by the hidden camera(s).
4. In the Lane Name text box, provide a name that will be displayed to the user when a hit occurs. In a traffic configuration mode, you might use "Left" or "Right" which refers to the traffic camera on the left (Driver's side) and the traffic camera on the right (Passenger side).
5. Select the camera type to be associated with the lane.
6. In the Connection String box, enter a COM port to serially control the camera or the IP:Port to control the camera over TCP/IP.

Steps 7 through 14 should be repeated for each lens (infrared and color) that will be a part of the lane. If you are using a 3M mobile camera, there are two lenses. If you are using a Sony or DEW camera, there is only an overview lens.

7. In the Camera drop-down box select the lens type you wish to configure. Choose OV for the color overview lens, and IR for the infrared lens.
8. Select the capture device in the Device drop-down.
9. In the drop-down box, select the appropriate input number for the device you are using. The appropriate input number varies with the type of capture device.
10. If Client or AVI Files are chosen for the device type, enter a path.
11. Check the Enabled box to activate the camera.
12. Check the OCR box if optical character recognition will be performed with this camera.

Tip: Check the OCR Enabled box only for the IR lens of a 3M mobile camera. For certain states that do not have retro-reflective plates, optical character recognition may be performed from the image captured by the color lens of the camera. When OCR is performed on a color image, the processing requirements increase and the accuracy will be somewhat diminished relative to OCR from the infrared image.

13. If the camera supplies video in the NTSC signal format, check the NTSC box.
14. After the cameras have been configured, verify the camera input and proper alignment on the Cam Setup screen, as explained in Section 4.8.3.

4.8.6.14 Info

The Info screen displays additional information including the version number of the current installation. This information may be helpful when calling Technical Support.

4.8.7 Live View

Captured live images can be viewed on the Live View screen, which is described in Section 4.2.

5 Appendix: The 3M License Plate Capture Software Database File

This information is useful when the 3M License Plate Capture Software is used without the 3M Back Office System Software, or when it is used in Data Sync mode.

The only file format that the 3M License Plate Capture Software supports for importing data into the vehicles for the purpose of matching against the capture license plate is a CSV (comma-separated value) file. This format is a standard ASCII text file that is platform independent and understood by many of the common spreadsheets such as Microsoft Excel as well as by any text editor such as Notepad. The 3M License Plate Capture Software will support CSV files with any number of columns, called fields, as long as the first field is the VLP (Vehicle License Plate).

Example CSV 1

```
ABC123, Red, Ford, Explorer, 1996, WANTED
XYZ456, Blue, Audi, A4, 2001, MURDER
```

Example CSV 2

```
45ABC234, Vehicle wanted in associated with a kidnapping on 12/5/2005
995BD233, Vehicle reported stolen from Liz's Lounge at 6am on 12/1/2005
```

Example CSV 3

```
UIO223
ABC123
```

The 3M License Plate Capture Software calls files in pairs: a database is created using two files, a CSV file and an INI configuration file. Without that file, the database will not load. If, for instance, the file that a police agency is trying to import into the 3M License Plate Capture Software is called `stolen.csv` (again, recall that CSV files are the only format supported by the 3M License Plate Capture Software) then the corresponding INI file would be called `stolen.ini`. The 3M License Plate Capture Software will only load a CSV file for a database if it has the same name as the INI configuration file.

5.1 Interpreting the Sample File

Lines that appear in brackets `[]` are called Headings. The lines that appear between the headings are called values. Values will always contain an equal sign (`=`). If a line starts with a semicolon, it is considered to be a comment and is not read by the system. There can be any number of comments in the INI file.

5.1.1 The *[SETTINGS]* Heading

Under the Settings heading there are the values `NumFiles`, `DbName`, `DbColor`, `Priority`, `Covert`, `Alarm`, and `NumFields`. The *NumFiles* value tells the system how many database files the system should split the specified hotlist into. Generally a value of 1 is acceptable, but for larger hotlists (200,000 +), a number of 2 – 5 may be desirable.

The *DbName* value tells the 3M License Plate Capture Software what the displayed name of the hotlist should be.

The *DbColor* value tells the 3M License Plate Capture Software the display color of the hotlist. This is merely an esthetic setting and not a functional setting. The right-hand side of the equal sign is the HEX value representing the ARGB values for the color. If you do not know what this means, you should simply leave this line out of the file.

The *Priority* value designates the priority of this hotlist in relation to other hotlists in the system. The highest priority database is 1 and the lowest is 999.

The *Covert* value determines whether standard 3M License Plate Capture Software users are alerted when a hit is made from the database. Covert database can be used for hotlists that are included for information-gathering purposes rather than eliciting user intervention. The system can also be configured to notify via email or SMS message when a hit is made from a covert hotlist.

The *Alarm* value tells the system whether a Low, Medium, or High audible alarm should be played when a hit is made from the hotlist. Values for Alarm are LOW, MED, HIGH.

The *NumFields* value tells the system how many fields (or columns) are in the CSV file. If this value is less than the actual number of fields in a file, then additional fields are placed in the general information area. This value also determines the number of headings of the [Field x] will be present in the file. For instance if NumFields=2 then there will be two additional headings, [Field 0] and [Field 1].

Creation = The timestamp when the hotlist was added to the Begin Shift file.

5.1.2 The [FIELD X] Heading

Under the Field heading, there are two configurable values: Name and PAGIS:

- The Name value tells the system what the name of this field is. If no name is specified, then there is no name given to the field. The format is *Name* = <field>.
- The PAGIS value tells the system how to display the field in the GUI (graphical user interface, the Windows application). If no value is defined, then the field is placed as general information. Values 1 – 5 represent special fields for 3M License Plate Capture Software that translate to the information being displayed in a box of its own when a hit is recorded. A value of 6 represents an ID number to cross reference the vehicle from this hotlist with a person from the wanted list. A value of 7 is identical to leaving the value undefined.

5.1.3 Sample INI Configuration File

```
[Settings]

NumFiles=1
DbName=Stolen Vehicles
DbColor=ffffff00
Priority=5
Covert=False
Alarm=MED
NumFields=8

;PAGIS Values
;0 is VRM / VLP (Not User Definable, always Field 0)
;1 is Special Field 1
;2 is Special Field 2
;3 is Special Field 3
;4 is Special Field 4
;5 is Special Field 5
;6 is ID Number (PNC ID, Drivers License, Social Security Number, etc.)
;7 is General Info (Default for all undefined fields)

[Field 0]
PAGIS=VRM
```

5.1.3 Sample INI Configuration File *(continued)*

[Field 0]
Name=VRM

[Field 1]
Name=Color
PAGIS=3

[Field 2]
Name=Make
PAGIS=1

[Field 3]
Name=Model
PAGIS=2

[Field 4]
Name=Action
PAGIS=4

[Field 5]
Name=Warning
PAGIS=5

[Field 6]
Name=PNCID
PAGIS=6

[Field 7]
Name=Intelligence
PAGIS=7

5.2 Additional Development and Support

Additional development by the 3M Traffic Safety and Security Division will be required in order to support additional data formats. Contact Technical Support at the address below for further information.

Phone: 877-777-3571

Email: ALPRSupportUS@mmm.com

Web: www.3M.com/mvss

Fax: 800-591-9293

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St. Paul, MN 55144**

6 Appendix: Additional Procedures

6.1 Microsoft .NET 3.5 Installation

The 3M License Plate Capture Software requires Microsoft .NET Framework 3.5. If your computer does not have .NET, it can be downloaded from the Microsoft website. If you are using Windows 7, the 3.5 Framework is already part of the operating system, even though it does not show up in Add/Remove Programs.

6.2 Firewall Settings for Client-Server Installations

For client-server installations, the appropriate settings need to be added to Windows Firewall to allow the two processors to communicate. If your systems are maintained by a Network Administrator, you should contact the Administrator before making changes to the firewall.

1. Open a command prompt by going to Start -> Run and typing **cmd** and clicking **OK**.
2. From the command prompt, run the following 10 commands. When the commands are successful, the word OK will appear.
 - a. `netsh firewall delete allowedprogram "C:\Program Files\PIPS Technology, Inc\PAGIS2\VPRelay.exe"`
 - b. `netsh firewall delete allowedprogram "D:\PAGIS\VPRelay.exe"`
 - c. `netsh firewall delete allowedprogram "C:\Program Files\PIPS Technology, Inc\PAGIS2\PAGIS.exe"`
 - d. `netsh firewall delete allowedprogram "D:\PAGIS\PAGIS.exe"`
 - e. `netsh firewall add portopening TCP 9000 PIPS_ViewFinder`
 - f. `netsh firewall add portopening TCP 10000 PIPS_Images`
 - g. `netsh firewall add portopening UDP 10010 PIPS_Ping`
 - h. `netsh firewall add portopening TCP 32023 PIPS_Config`
 - i. `netsh firewall add portopening TCP 32024 PIPS_GPS`
 - j. `netsh firewall add portopening TCP 32025 PIPS_GPS2`
3. Restart the computer.

6.3 Mapping a Network Drive

The instructions below provide basic directions for mapping a network location to a drive. Please contact your System Administrator for assistance.

1. Open a file browser and browse to the folder you wish to use.
2. Right-click on the folder and choose Map Network Drive from the contextual menu or use the Tools > Map Network Drive command. If the Map Network Drive option is not available, try selecting a folder higher up in the directory structure.
3. Choose an available drive letter for the drive to be mapped.

6.4 The 3M License Plate Capture Software Version 2.7 Series Troubleshooting

ISSUE REPORTED	EXPLANATION	STEPS TO CORRECT
Error message displayed "Could not connect to remote host!"	The connection between VP Relay and the MDC version of LPCS has been lost.	<ul style="list-style-type: none"> - Confirm that VP Relay is running on the 3M Mobile ALPR Processor. - Confirm that the MDC running the 3M License Plate Capture Software is able to ping the 3M Mobile ALPR Processor. - Confirm the IP settings for both applications match the IPs for the MDC and the 3M Mobile ALPR Processor. The software stores the 3M Mobile ALPR Processor IP in the file PAGIS.exe.config, in the 'DEWG3.ConnectionString' field. VP Relay stores the MDC IP in the file anpr2.ini, in the '[Send] Address' field. - Confirm the port settings for both applications match. The 3M License Plate Capture Software stores the port in the file PAGIS.exe.config, in the 'ANPR.Location' field. VP Relay stores the port in the file VPRELAY.exe.config, in the 'ConfigPort' field. - If the connection still cannot be made, the installation needs to be escalated
Reads are not syncing to BOSS. There is an error message in the log file indicating that the end point cannot be reached related to the REST API.	This is an issue seen when the port settings are not correct.	<ul style="list-style-type: none"> - Confirm that the port has been set correctly in the Admin/Sync/BOSS3 section. - Confirm that the port has been set correctly for the REST API on the Network Port Settings screen in the BOSS3 Controller. - Confirm that the firewall is open for the port being used by the 3M License Plate Capture Software.

6.5 Instation (formerly B0F2) Configuration Information

The Instation software (formerly known as B0F2) is a back office program used in the European market that was written by a company called Anite. It is a web-based software that provides similar features to the 3M Back Office System Software (BOSS), like hotlist management.

Instation configuration options in the B0F2 options screen:

End Point – The IP address of the Instation website. The format must be <IP Address>:<Port>.

Force – A unique code assigned to each police force.

Location – A unique number assigned to each mobile unit within a force. For example, if a force has 20 vehicles, in each of the mobile units the force numbers would be identical, but the Locations would be 1–20.

Patch – The image of the plate that is pulled from the read. It is checked by default; the Patch image will be sent to Instation.

Overview – The image captured for the read. It is checked by default; the Overview image will be sent to Instation.

Compact – Select if the communication packet being sent to Instation needs to be minimize. This will cause the application to create communication packets without images included. This is not checked by default. If checked it will uncheck the Patch and/or Overview settings.

To Reset Hotlists after Save: Instation tracks what hotlists have been sent to a 3M License Plate Capture Software system. When a hotlist update is available, Instation is then able to send only the information that the software system has not yet received.

At any time a 3M License Plate Capture Software system can decide to collect fresh hotlists, and the current ones can be deleted. If the "reset hotlists after save" flag is set, when the software system syncs to Instation, it will send a message indicating that the hotlist version tracking needs to be reset. Instation will now send all of the full hotlists.

Glossary

Term	Definition
ALPR/ANPR	Automatic License Plate Recognition/Automatic Number Plate Recognition
GPS	Global Positioning System
Hotlist	A database or list that contains vehicle license plates of interest
IR	Infrared
License plate	Also called a tag or number plate
MDC	Mobile data computer
OCR	Optical character recognition
OS	Operating system
USB flash drive	Also called a thumb drive or memory stick
VLP	Vehicle License Plate
Whitelist	In the 3M Back Office System Software (BOSS), a whitelist hit is the opposite of a hotlist hit. When a license plate does not exist in an enabled whitelist database, the same Hits (Alert) screen will be displayed

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